

Iraq Oil Historical Perspective: Why, When and How?

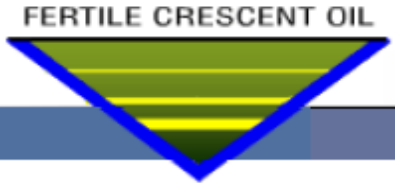
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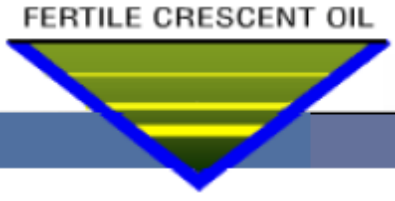
Iraq Oil Historical Perspective: Why, When and How?

I move that Iraq oil has been the target of the major consumers, their governments and IOCs.

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1. Why? Iraq Oil the Jewel in a Global Context

The Witness:

1. Iraq's Vital Techno-Economic Statistics

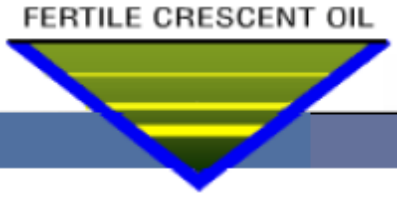
2. Iraq's Oil and Gas Reserves

3. Iraq's Oil and Gas in a Global Context

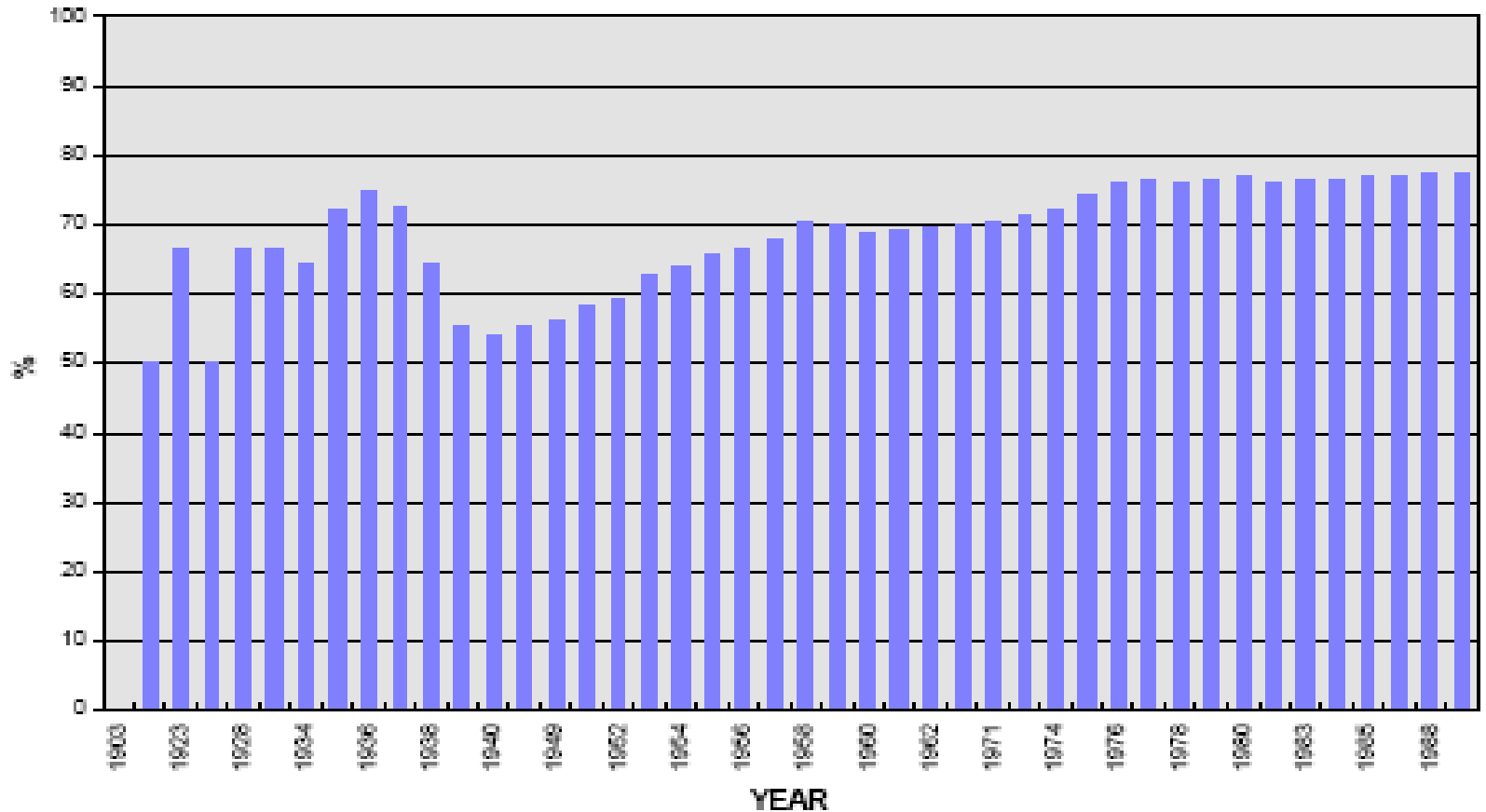
4. A, B and C Iraq Oil Forecast & IEA 2012

Study

Graphs

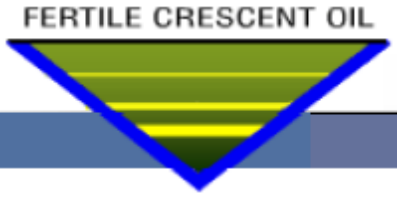


1.1 Exploration Economics

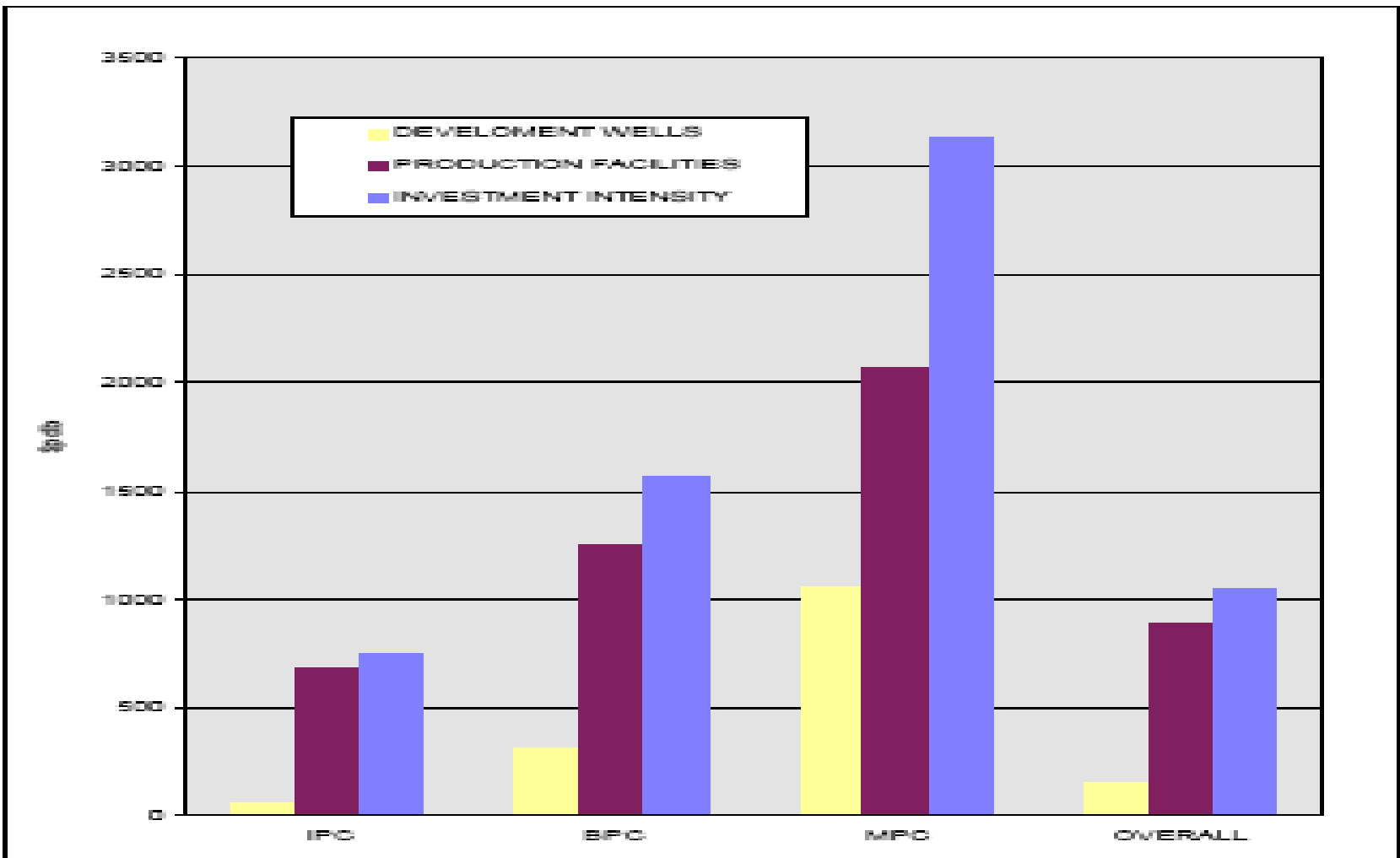


The percentage of successful exploration wells in the country started at 50% and maintained a higher level steady at 77% by the time Akkas well was drilled in 1992; placing finding cost at a fraction of a cent. Today's discovered bbl remains a fraction of \$1. Exploration in KRG supports such high success.

Courtesy: P&A

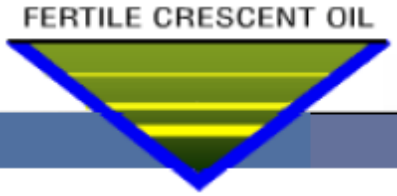


1.1 Iraq's Development Economics



Courtesy P&A

CAPEX historical cost \$ 750-3,250 averaging \$1,050 per daily barrel (\$ 1997). Today in the region of 7,500-11,000. OPEX in the region \$1-2 per barrel.

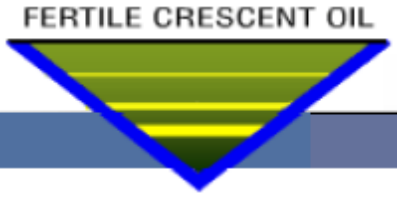


1.2 Iraq's Oil Reserves*

Discovered fields	<u>80</u>
Oil-in-place, Bbbls	<u>468**</u>
Ultimate proven reserve, Bbbls	145
Produced oil by 1/1/2007, Bbbls	30.5
Proven reserves, Bbbls	<u>115-143</u>
Potential new oil-in place, Bbbls	<u>694</u>
Potential Proven Reserves, Bbbls	216

****The use of oil-in-place is the more indicative of reserves. Reserves change with recovery and often on the increase as development practices improve with time and reservoir properties better understood**

* Published Data & P&A Study
Courtesy: P&A



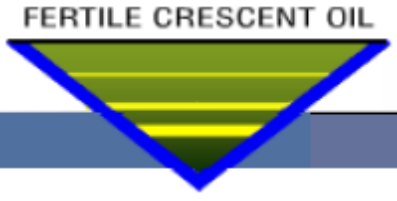
1.3 Iraq Oil in a Global Context

Iraq on par with Saudi. **It is furthest away from peak oil decline.** Produced 8% of its resource while the non-OPEC producers are at or near peak oil decline..

Country or Region	Production Bb	Production % Total	Proven + 15% & Potential	Resources Oil Base Total
UAE	24	15.1	135	159 (55.5 Bb from Peak)
Kuwait	35.8	20.3	140	176 (55.2 Bb from Peak)
Iran	58.3	23.5	190	248 (65.7Bb from Peak)
Iraq	30.5	8	380*	<u>410 (174Bb from Peak)</u>
Saudi Arabia	106.4	22.6	365	<u>471 (129 Bb from Peak)</u>
MEM	255	17.4	1209	1464 (477 bb from Peak)
World	1016	34.1	1964	2980 (474 Bb from Peak)
World Excluding MEM	761	50.2	754	1515 (-3.5 Bb from Peak)

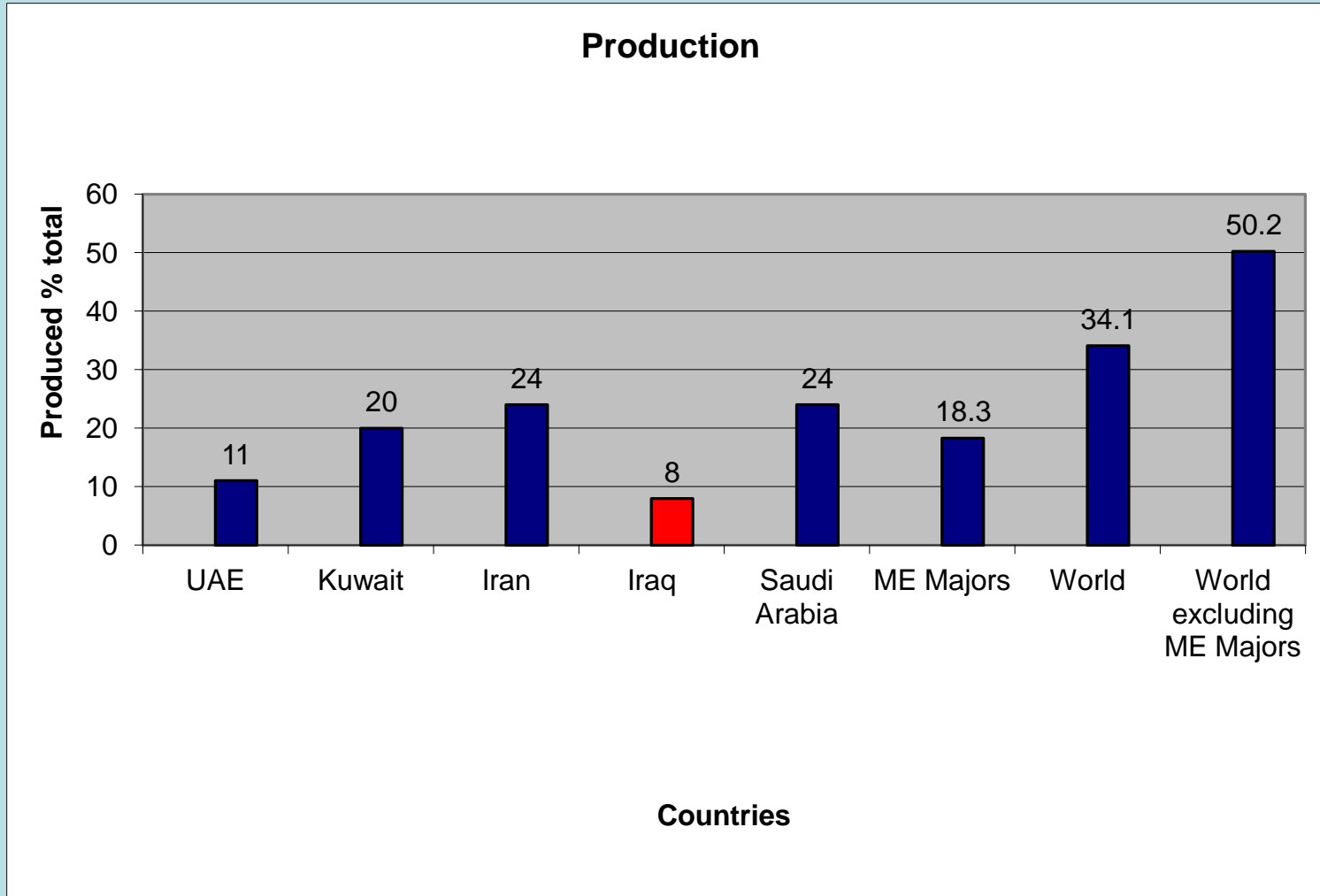
Potential at 20% of proven reserves while Iraq's quoted P&A Study result at 215 Bb*.

Proven Reserves on 1/1/07. Increased proven reserves by 15% for Enhanced Recovery.

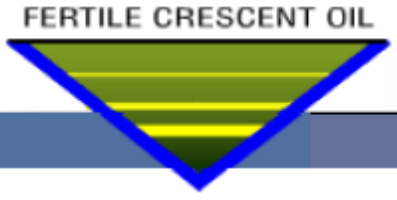


1.3 Oil Resource Produced, Percent

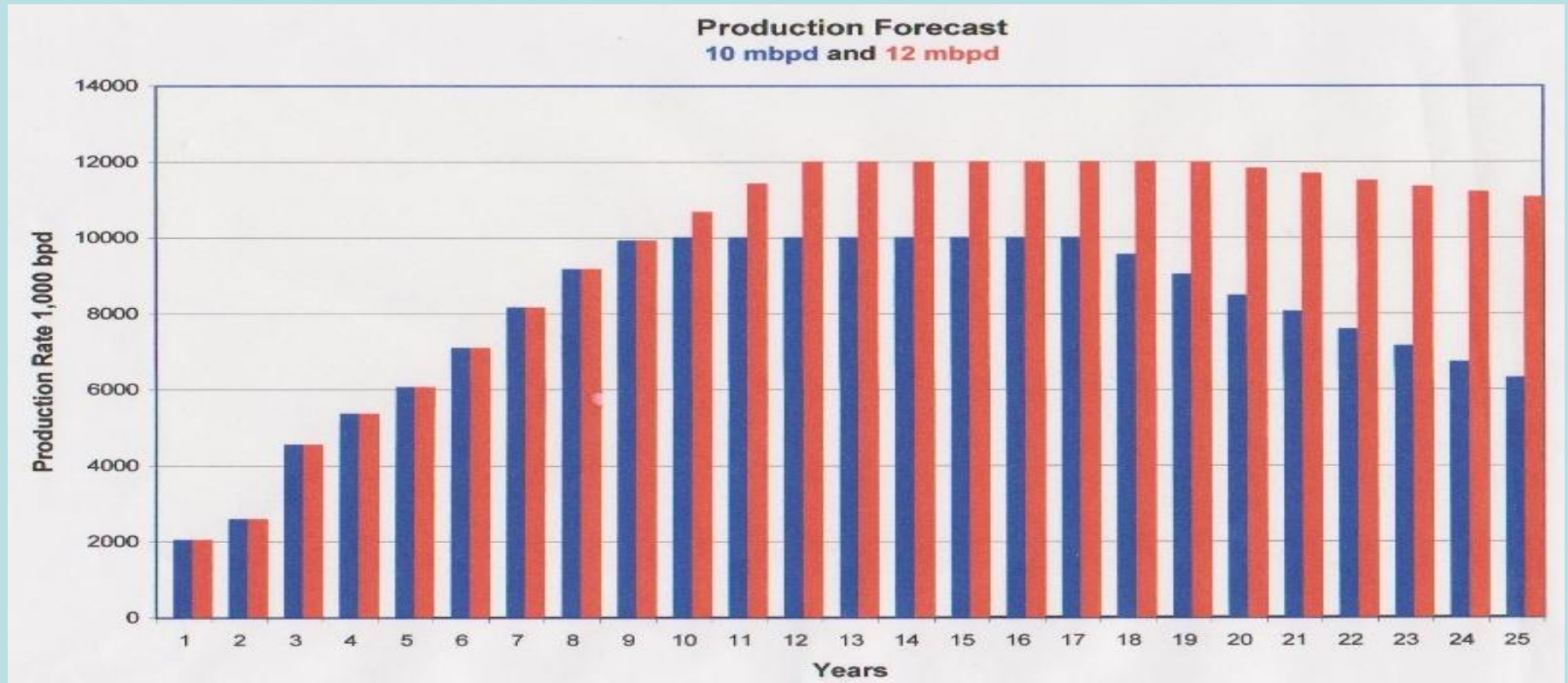
Iraq Produced Least: Only 8%



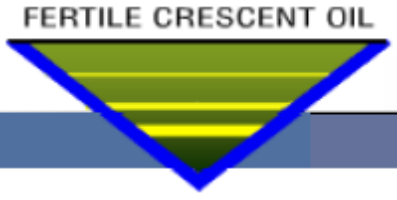
Iraq will maintain its oil peak when the other major oil producers are on production decline



1.4 Iraq Oil Production Forecast

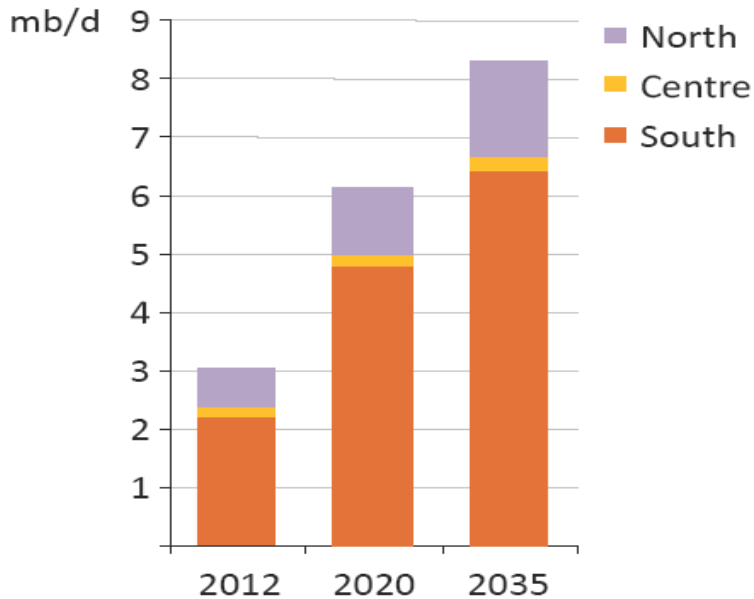


At annual depletion of 4-5%, Iraq can continue its upward production rate to 10 mbpd and beyond to 12+ mbpd conditional on adding in new potential reserves so as not to exceed the above depletion rate), when other ME Majors would have passed their reserve mid-point and started to decline. IOCs commitment to sustain 12 mbpd peak from 82 Bb can only be achieved at higher cost and potential damage to recovery. However, production rates are beyond global demand.

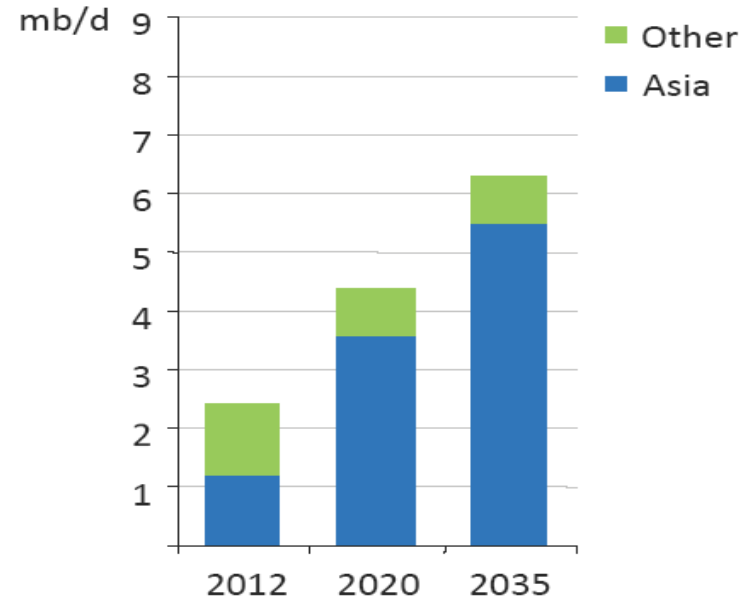


1.4 IEA STUDY 2012

Iraq oil production



Iraq oil exports

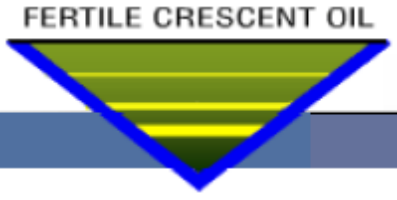


Production more than doubles by 2020 & reaches more than 8 mb/d by 2035, with Iraq becoming a major supplier to Asian markets, especially to China & India

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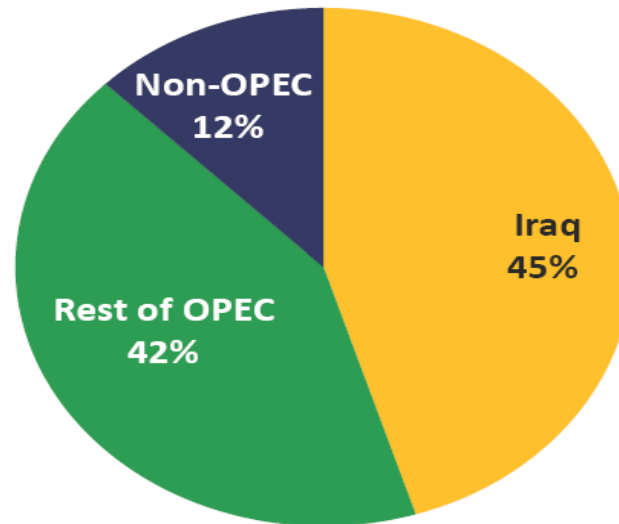
Courtesy IEA

Iraq's oil production increases to more than 6 mb/d in 2020, reaches 8.3mb/d in 2035. In the High Case, production surpasses 9 mb/d already in 2020, before rising to 10.5 mb/d in 2035. Meeting these trajectories will require rapid, co-ordinated progress in many areas to ensure the timely availability of rigs, sufficient water for injection to maintain reservoir pressure, and adequate storage, transportation and export capacity.



1.4 IEA 2012 STUDY

Growth in oil production, 2011-2035

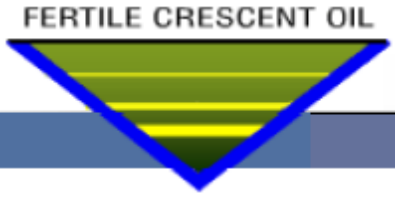


Iraq accounts for 45% of the growth in global production to 2035; by the 2030s it becomes the second-largest global oil exporter, overtaking Russia

© OECD/IEA 2012

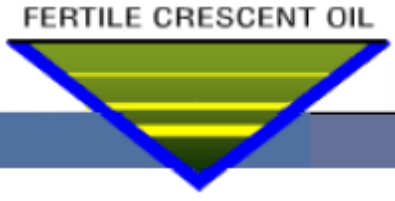
Courtesy IEA

Planned Capacity of 13+ mbpd is beyond Iraq and IOCs to achieve by 2017 and the global market demand. Unless rescheduled inline with IEA 2012 Study of 6 mbpd by 2020 and 8 mbpd by 2035, overcapacity shall be a cause of heavy financial penalties payable to IOCs.



2. When? Background: IPC Concession The Loot of the First World War cont.

- **The history of the Iraq Petroleum Company's (IPC) formation and the way shares were distributed between the British, French, Dutch and later the American companies are evidence of the role of politics in the Middle East in acquiring oil concession rights during and in the aftermath of the First World War.**
- **The inclusion of Exxon and Mobil took place post the creation of the IPC in 1925, to meet the demand of the American State Department.**
- **Oil was the loot of the victorious powers of the 1st World War despite oil was not the cause or objective. Iraq occupation of 2003 took place with the full recognition of Iraq oil richness and at a time when the global peak oil judged around the corner making security of long term supply paramount.**
- **Clearly Iraq's and the ME concessions were the product of the 1st world war.**
- **Similarly, the return of the Major IOCs to Iraq appears to be the product of the Gulf wars and March 2003 invasion.**



2.1 The Concession Era

- **The San Remo Conference of April 1920 set the formal outline among Britain (BP) and France (CFP) of an oil concession in Iraq which provided 20% participation to Iraq. Concessions in the rest of the ME followed providing the loot to the war victorious powers.**
- **The traditional slow-go approach of the Iraq Petroleum Company (IPC) and its associated companies, its ability to shift exploration and production to where it best served its interests and to strengthen its negotiating power. Failure of the negotiation over relinquishment and participation lead to the enactment of Law 80 in 1961.**
- **The IPC and Associated Companies neglected totally issues related to Local Content and formed distinctive economic and social enclave, foreign and privileged and, thus, the terms ‘concession’ and ‘concessionaire’ developed controversial implications. Nationalisation became inevitable post Law 80 of 1961 following the failure of the negotiation over relinquishment and participation and at a time OPEC succeeded to nationalise through negotiating majority or total shares acquisition of the concession agreements.**
- **The cost to Iraq was high: Iraq lost market as its production capacity was frozen around 1 mtpd until the nationalisation of 1972-1975 (at 1.25) while others such as Saudi Arabia which was only marginally higher than Iraq in 1961(Iraq was just below 1mtpd while Saudi Arabia at 1.25 mtpd) took off targeting 10mtpd.**

2.2. The Nationalised & Post 2003 Eras

Nationalised Era

•On past record, instituting INOC has proven a success during the seventies. It built production capacity to over 3.5 mbpd in a few years and added oil reserves at a world global record of 6+Bb per year. However:

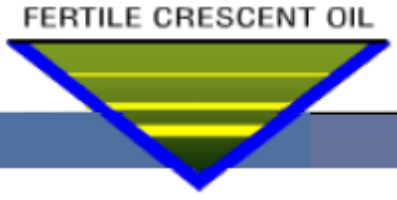
•The government's politically-driven decisions, confrontational policy and unnecessary and destructive wars and years of sanctions have proven serious impediments to maintain past successes and lead to dilapidation of the infrastructure and retrograde of the production capacity. Iraq production rate has never caught up with its reserves capability.

Post 2003 Era

•Today, failed-state impediments which include: terrorism, ethno-sectarian divide, corruption and absence of institutions limit the Iraqi government's ability to govern effectively or promote co-operative and coordinated plans and policies by the different components within any one ministry or between ministries.

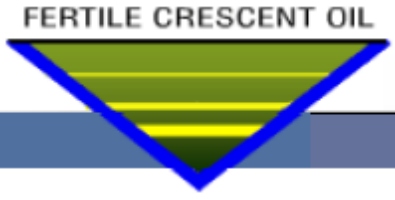
•The oil industry has had its full share of such impediments. Present oil plans, policy and contracts lack uniformity, suffer politicisation, inefficiency, transparency and credibility.

•A major draw-back: the absence of local content which is vital for the success of the present contracts as well as the national economy, transfer of management and technology, the rise of new national businesses and projects and the well-being of the nation. And, contracting lacks full compatibility with constitution and law 84 of 1985.



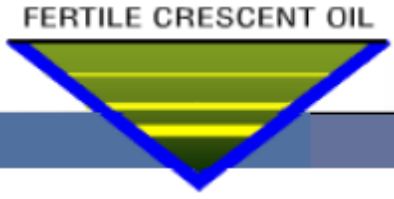
2.2 The New Era Post 2003: The CPA, Provisional Government & TAL

- **The Temporary Administration Law (TAL) designed by the CPA set out the principles of the 2005 constitution. It planted the principal foundation of governance on ethnic and sectarian basis exemplified by the make up of the CPA and the Provisional Government. It denied the federal government sufficient authority and granted the region (KRG) de-facto con-federal status and the provinces sufficiently wide authority to form distinctive enclaves replacing the nationhood culture, Iraq.**
- **The Prime Minister of the provisional government, Dr Ayad Alawi, made efforts at formulating an oil policy which had to be abandoned in due course due to its conflict with TAL which denied, rightly, the provisional government enacting policy that impact on the long term of the nation**
- **He intended to establish INOC, whose operations, however, were to be limited to the then existing oil producing fields, with the prospect of its partial privatization.**



2.2 The New Era Post 2003: The CPA, Provisional Government & TAL

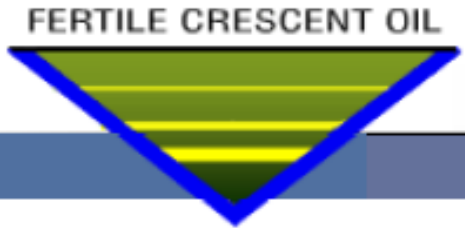
- Alawi emphasized expediting the entry of IOCs to start developing Iraq's undeveloped fields on a modified type of PSA that bars any government entity becoming a party in the PSA.
- To his credit, however, he appreciated and promoted the requirement for a vital policy issue: 'Local content' to be encouraged in order to develop Iraqi private enterprise where he even suggested preferential treatment to Iraqi service companies.
- - However, his vital policy lines would have run counter to the terms of the TAL annex that governs the transitional governments: it prohibits long term contracts that impact the long-term development of the Country.
- **This raises the legal question: Does a government, which falls into the definition of a badly failed state, of questionable competence, qualify to enact long term oil contracts that impact on the management quality of the most valuable assets of the nation, the oil and gas assets?**



2.3 The Constitution: Constitutional Review 7 Years Overdue & the Draft Petroleum Law Stalled

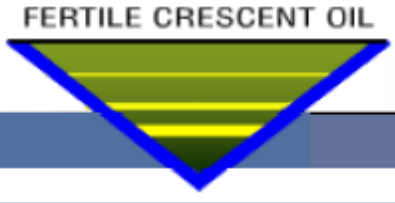
Articles Governing the Constitutional Oil and Gas Assets and the Draft Petroleum Law

- Article 111 states that oil and gas are the property of the entire nation in all the regions and governorates.
- Article 112 is in two parts. The first deals with further development of the producing oil and gas fields, and the second with the shaping of strategic policy thereof.
- Both parts require that policy be made by the Federal Government in consultation with the provincial Regions and Governorates which should ensure the “highest benefit to the nation” and be based on the latest technology of the market principles and investment promotion. This made it mandatory that most efficient exploration and development, management policy and plans be sought; and that any policy that does not lead to achieving the highest benefit, revenue and fringe benefits, to the nation is not acceptable.
- KRG has already granted some 50 E&D rights to mini IOCs (with the exception of a few) based on PSA model outside the country’s strategic policy.
- The Federal government granted some 14 Service contracts hurriedly in a Tsunami race, covering 3/5 of Iraq proven reserves.
- The petroleum draft law was based on Articles 111 and 112 seen in the light of Article 2, 49, 109 and 110 of the constitution which broadly define the authorities and responsibilities of the Federal and Provincial authorities within the petroleum sector.
- And Article 110 tasks the federal government exclusive powers, among others, of Formulating fiscal and customs policy; regulating commercial policy across regional and governorate boundaries.
- The struggle over power between KRG and the Central government has denied the nation of a ready draft of the constitutional review and stalled the draft petroleum law.



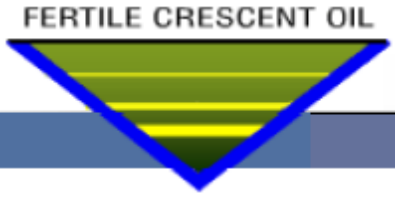
2.3 The Objective of the Petroleum Law

- **The draft petroleum law overall objective is to optimize the oil and gas exploitation, maximize the return and unite the country.**
- **It aimed at uniformity of plans and policy throughout the country. It provides prior consultation with the provinces. Decisions taken at the centre involves the provincial regions and governorates participation.**
- **Supervision of Oil and gas operations is shared between the Provinces and Ministry. The decision making process had check and balance to enhance transparency and anticorruption practices.**
- **Broadly defines the authorities and responsibilities of the Federal in consultation with the provinces. And, All model contracts should honour following five main objectives and criteria:**
 1. National control
 2. Ownership of the resources
 3. Optimum economic rent to the country
 4. Appropriate return on investment to the investor
 5. Reasonable incentives to the IOC for ensuring solutions which are optimal to the country in the long-term related to i.a.: Improved and enhanced recovery, technology transfer, training and development of Iraqi personnel, optimal utilisation of the infrastructure and environmentally friendly solutions.
- **Two-track development (one by the central government and the other by KRG) has arisen as a result of power struggle in contradiction to very essence of the principles of the draft petroleum law and the constitution**



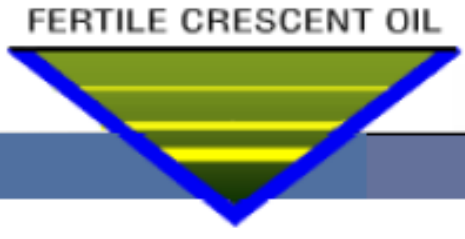
3. How? The Events Speak For Themselves: 3/4 of Iraq Reserves Committed

- 1. The Power Struggle: Erbil Vs. Baghdad**
- 2. The Erbil PSA: Highlights**
- 3. Baghdad Service Contract: Highlights**
- 4. Concluding Remarks**



3.1 The Power Struggle: Erbil Vs. Baghdad

- There are some 415 undrilled structural anomalies having estimated potential reserves of 216 Bb which are distributed unevenly in the Regions and Governorates. The present proven reserves are 115 Bb housed in 80 fields.
- Consequently, in due course the oil and gas rich Regions and Governorates, if either takes on the E&D in their own areas would have control over nearly two thirds of Iraq's oil and gas resource. As the Federal oil reserves of the present fields decline, the new reserves from of the rich oil and gas potential of the Regions and the Governorates build-up, giving increasingly greater power to the latter than the Federal Government.
- The present day oil and gas plans suffer lack of national unified plans and policy. It is expected that the present conflict, disharmony, competition, border disputes and envy between the haves and have nots would spread among the Regions and Governorates; a situation which shall inhibit harmony and have serious damaging consequences to the unity of the country and nation .



3.2 & 3.3 Erbil PSA & Baghdad Service Contracts

3.2 Erbil PSAs:

Enacted some 50 oil and gas exploration and development agreements within and beyond Kurdistan region.

Evaluation: high expenses front-loading at 50% or more. Windfall profit to contractor. Non-competitive or transparent, un-published until years later, no local content and incompatible agreements with the constitution.

3.3 Baghdad Service Contracts:

Service Exploration and Production Contract (SEPC) applicable to new exploration areas. Started with exploration mainly for gas.

- **Producing Field Technical Service Contract (PFTSC) applied to oil producing fields under Round 1& 2 with a view to: further capacity development; to improve and enhance recovery; technology transfer; training and development of Iraqi personnel but no local content; optimal utilisation of the infrastructure and application of environmentally friendly solutions. Long duration of 25-year contracts.**
- **Oilfield Service Development and Production Contract (OSDPC) applicable to discovered partially or not yet developed fields.**
- **Enacted some 14 PFTSC & OSDPC contracts having some 82 Billion oil reserves.**
- **Gas Field Service Development and Production Contract (GSDPC) applicable to the developed gas producing fields which granted 3 or 4 gas field.**

Evaluation: A highbred adopts PSA decision-making process; plateau level not necessarily consistent with optimum recovery or lowest cost; high 50% front loading of expenses; pays remuneration per barrel which increases as cost rises and grant of right yardstick did not include assessment of the proposed development plan of long 20-25 years duration without local content clause.



3.4 Concluding Remarks

- The objective of the first draft petroleum law of the MoO was to optimize oil and gas exploitation, maximize return, and unite the country and nation through uniform plans and policy. But, the modification by the ministerial committee under failed state conditions dominated by ethno-sectarian interests under pressure within and without de-railed the law out its objective and barred it out of check and balance control.
- The two track development by the KRG and Central government violates article 112 Second and Law 84 for the year 1985, "The Hydrocarbon Preservation Law." Neither the PSAs or the Service Contracts had the approval of the Parliament.
- The stalemate of the petroleum law we have reached is symptomatic of divisive and destructive elements which characterize the Iraqi state as a failed state.
- Never in the history of the global oil industry so much reserves have been committed to IOCs in such a short duration. Planned Capacity of 13+ mbpd is beyond Iraq and IOCs to achieve by 2017 and the global market demand. Unless rescheduled inline with IEA 2012 Study of 6 mbpd by 2020 and 8 mbpd by 2035, overcapacity shall be a cause of heavy financial penalties payable to IOCs.
- The return by the KRG and other players to the principles of a united nation governed in peace and stability adopting a federation model which enjoys the advantages of decentralization without the disadvantages of divisive ethno-sectarian politics, would expedite the chances of returning to a healthy state where the government is capable of managing the affairs of the country and the nation. Only then, Iraq's Petroleum Law would have the chance of a healthy revival and non-politicized professional amendments made in the light of positive constitutional amendment.