

# ***BARONNET***

(P&JB Consulting Ltd.)

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## 1.0 INTRODUCTION



**Peter Baron**, the founder and principal of BaronNet has a 39 year association with the Oil & Gas industry. He has worked within the Operating and Contracting / Consulting industries and gained experience in Refining, Oil & Gas Production, Gas Processing and Hydrocarbon Transportation. He has held positions in Technical and Project Management, IT / CAE Systems Development and Quality Assurance.

Key areas of experience and major responsibilities include:

- **Consultant** in oil and gas field development, conceptual studies and front-end design.
- **Independent Engineer** for design and development reviews and audits
- **Project Management & technical direction** of multi-discipline engineering projects for onshore / offshore oil & gas and pipeline projects.
- **Independent Consultant** in simulation and optimization, technical and operational solutions for refinery operations and energy reduction.
- **Management** of multi-discipline engineering design office.
- **Manager** of CAD/Database systems, Project Manager of the development of engineering software systems.
- **Development and Management** of a Corporate Quality Management System to ISO 9001 certification, auditing and assessments.

### **Qualifications & Professional Associations**

B.Sc. (Hon.) Chemical Engineering,  
Chartered Engineer,  
Fellow Institute of Chemical Engineers,  
Certified Lead Assessor (QA).

### **World Wide Experience**

Experience has been gained in the UK North Sea, Former Soviet Union, Middle East, North / West / Central & South Africa, Gulf of Mexico and North / South America

## 2.0 PRINCIPLES

### **Network of Experienced Oil & Gas People**

BaronNet is a group of individuals linked by their experience, knowledge of each other and each other's capabilities, aware of what they can achieve together – as both individuals and as a team. The raison d'être of BaronNet is to retain the experience of Oil & Gas people who would otherwise retire, change career or otherwise abandon the field. These are people who enjoy using their expertise to provide solutions, to remain active and involved in an industry which continually raises new challenges.

### **The Team**

Members of the BaronNet Team are all associates or former colleagues and intimates of many projects. Any task or assignment is the focus of the Team – using the Virtual Office the support of the whole Team is on-call for any one individual – wherever in the world employed.-  
The Team form a virtual expert network, using the latest Internet technology, performance unrestricted by boundaries, time or by conventional office practices working as one team.

### **Expertise**

The members of the Team are experienced in most aspects of Oil & Gas – from the earliest analysis and conceptual thinking through the front end design, the detailed engineering and project management on to the field operations, troubleshooting and revamp. They are equally adept auditing the work of others or at providing the designs, at guiding the project to success or helping retrieve the wayward project from potential disaster.

### **Confidentiality**

The people and the virtual office are both pre-disposed to providing Clients with full and secure confidentiality – involvement in any particular activity or the information surrounding it is strictly controlled by the work environment and by the professionalism of the people.

### **3.0 SERVICES & PROJECTS**

#### **3.1 Consulting Services**

##### **Consulting**

Early appraisal, screening, selection & sanction - onshore & offshore field development

- Strategy support to in-house development- independent / peer review
- Provide leadership or direction to Clients' development team(s).
- Participate in integrated teams with Client's personnel
- Execute support studies & services with a BaronNet team

##### **Focus Workshops**

Organize and facilitate workshops to focus development ideas for:

- Initial scheme development – Creative ideas generation and assessment
- Schemes under development – Screening for direction & assurance
- Sanction - Selection and decision support to meet Client approval criteria

##### **Audit / Review Independent Engineer**

Provide independent technical / engineering expertise for:

- Screening and high level management review
- Design review / audit – for re-assurance of design integrity
- Project assessment / audit /troubleshooting

##### **Assignments**

Individual personnel, with the BaronNet backing, to undertake;

- Tasks or defined activities within developments
- Study / Project management or team leadership
- Troubleshooting or operational / safety support work

##### **Project Development**

Support Contractor development or bid activities

- Development and design – scheme improvement or cost reduction
- Activity and workscope definition & schedule development
- Team Management / leadership

##### **Design**

Provide independent design services for:

- Overall scheme development and feasibility / screening studies
- Conceptual & process design through to facility definition
- Troubleshooting or operational improvement

### 3.2 Recent Project Briefs – 2001 - 2008

#### **Independent Consultant**      **Margham Dubai Establishment – Independent Review / Audit**

The MDE Gas Plant is being expanded with a Booster Compression Project; the review embraces the entire project to audit the strategy & execution of the project, included integrity, lessons learned, and the business processes and oversight methods.

#### **Director of Project Development**

**Offshore** - Crux, FPSO, Timor Sea – Design Review and Due diligence of proposed FPSO based gas recycling/stripping development.

MEO, Timor Sea – review of concept designs for offshore LNG and Methanol production platforms.

**Refineries** – Development of three refinery basic engineering packages for EPC bid; simple condensate splitter with hydrotreating; complex refinery with thermal/visbreaking cracking complex; full complex hydrocracker based scheme. Support to commercial negotiations.

Development of numerous other schemes for Gas Oil upgrading, residue cracking, and brownfield upgrades.

**Pipelines & Terminals** – Development of the concept design, preliminary engineering and Capex/ Opex of a multi-product pipeline and associated import and distribution terminals; routed from Maputo, Mozambique to Gauteng Province in RSA.

Oil Storage & Blending Terminal, Fujairah – development of schemes, basic engineering through to EPC bid-package, support of commercial negotiations.

**Onshore Oil & Gas** – Saih Rawl, Oman – development of concept and costs.

Kurdistan, Iraq – development of fast-track EPF production facility with concept definition, costs and schedule.

Chergui Gas Tunisa – design review and due diligence with safety review workshops for onshore production and onshore/offshore pipelines.

**Alternate Energy** – development of concept for a concentrated solar power generation scheme

#### **Assignment**

**Project Director** – FEED for QP, Qatar to upgrade NGL 1,2,3,&4 facilities for increased throughput and new feed stocks; including two new gas pipelines; new slug catcher and a new Propane Refrigeration System. Facility upgrade included column re-trays; new and replacement reboilers, condensers & rundown coolers; additional pumps, air coolers and extensive hydraulic

debottlenecking of lines and valves. Supporting works included Risk and Environmental; Control Systems extensions and extensive site works including detailed surveys.

**Proposal Director** – Epic tender for new grassroots refinery at Sohar in Oman; responsible for complete tender and supporting development engineering, cost & schedule and representation at JV co-ordination. Lead design improvement studies.

**Development Consultancy** Prepared overview analysis of issues facing a new field development in onshore Africa – political, business, technical, and socio-economic

**Independent Engineer** Reviewing process facilities of the Shell Sakhalin Development – offshore production; onshore receiving and processing terminal; pipelines; pumping & compression stations; LNG production facility; export terminal – LNG and Oil (Ongoing)

**Independent Engineer** PEER review of new heavy oil field in early concept development in East Africa

**Independent Consultant – Technical Advisor** Advisor to the Contract Close Out Team of the subsea and topsides facilities of the Mossgas Bredasthorp Development, offshore Mossel Bay, South Africa

## 4.0 INDEPENDENT ADVISOR ROLE

### **4.1 Client - Project Development Support**

BaronNet proposes to provide advice and support to Client development teams and their management's decision making, from the earliest concept of a project, through its development and approval cycles until it becomes sanctioned – or otherwise - by the Client's internal procedure.

In the earliest stages this would comprise review of the project(s) economic and technical feasibility. It may also review the project potential including assessment of ranking within the Client portfolio of other competing investments. A key service would be to facilitate brainstorming or similar workshops to seek additional value through alternate routes, new technology application or simpler enhancements to the initial scheme. From the outset a goal would be to identify and track both risks and opportunities, another would be to present "independent" ideas and comment on the status and direction of the selected project(s) to the Senior Client representative ("Gatekeeper")

As the project moves forward, the role would continue to provide the above independent monitoring and improvement seeking but would also broaden. As the scheme is developed the independent advisor would become more closely involved to include the overview of the technical requirements and the design basis, cost & schedule (budget level), competing projects, logistics, contract strategy, potential contractors, risks, environmental etc. The advisor's role would be to ensure the completeness, accuracy and currency of the whole basis upon which the project decisions are taken.

A key role at this time, would be to provide team leadership in the self-appraisal of the development and co-ordinate inputs to the management and the decision making process. If required the review could also include business analysis for economic feasibility.

During later stages, conceptual design and front-end engineering the potential services for the Independent Advisors would include technical and economic review of the design, project status assessment and benchmarking, facilitation of review workshops (either to add value or to audit), assessment of contracts and contractor selection. Personnel might also be assigned to act as Client representatives for management of Contractors.

Many of these functions will act as precursors to or as a basis for the Independent Engineer's role in achieving financial sanction for lending institutions. In fact, properly executed the project documentation and information generated should meet these precise requirements and expedite or pre-empt the traditional IE review for the lending institution.

The Independent Advisor will have a broad background of project development, of business management and of the industry and its technology, as well as experience in projects of a similar nature. The Advisor will have an industry reputation for knowledge and integrity. Whilst being comfortable in the presence of senior managers, the Advisor will be at home on the design floor or the job site. Although independent in view, he will be very much an integral part of the Client team.

## **5.0 WORKSHOPS FOR CONCEPTUAL DEVELOPMENT**

At the very early stages of developing the overall scheme for an Oil & Gas field there are a potentially wide range of possibilities. Whilst it is possible to very quickly identify a workable scheme it is more difficult to have confidence that this is the right scheme(s) or even a "good" scheme. Most of the influences will require subjective judgments – and there will be always be the possibility that the real winning scheme has been missed altogether. There are no guarantees with any process involving creativity.

However much of the "black art" of conceiving that initial scheme can be captured and conditions set which are conducive to both creating and tracking the development of the schemes. These conditions are best set in the format of the Value Engineering workshops – but with an emphasis firmly on creativity and not measurement.

Much of the traditional conceptual work requires at least three steps of generating ideas, filtering via feasibility reviews and the refining via various topic studies. A dedicated and well-selected team can accelerate these – with workshops at the core of the decision making steps. BaronNet envision three such steps – with workshops run along similar lines but each one becoming more focused and defined as the scheme(s) are developed.

### **The Creative Workshop**

At the very beginning the team has little more to go on other than the attributes of the Prospect. Therefore it is essential that the Client and Consultant assemble a team of wide experience embracing all potential facets of the development. The team and the facilitator would move through three initial steps

- Ideas generation – totally unrestrained deductive reasoning
- Review of key influences and screening on judgment of team members
- Selection and weighting into a main scheme with options.

At this level we would be dealing only with the major blocks of processing, structures etc which identifies the work which the team must then undertake to assemble the next level of information about the scheme(s). Subsequent to the workshop team members are actioned to better define the scheme options, costs, technical merits etc

### **Screening Workshop**

Now the team (essentially the same as for the first workshop) will step through the potential scheme(s) but with the benefit of additional technical and cost data. The review objective is to select the most favorable scheme and identify the possible matrix of technical and cost acceptable solutions for further study.

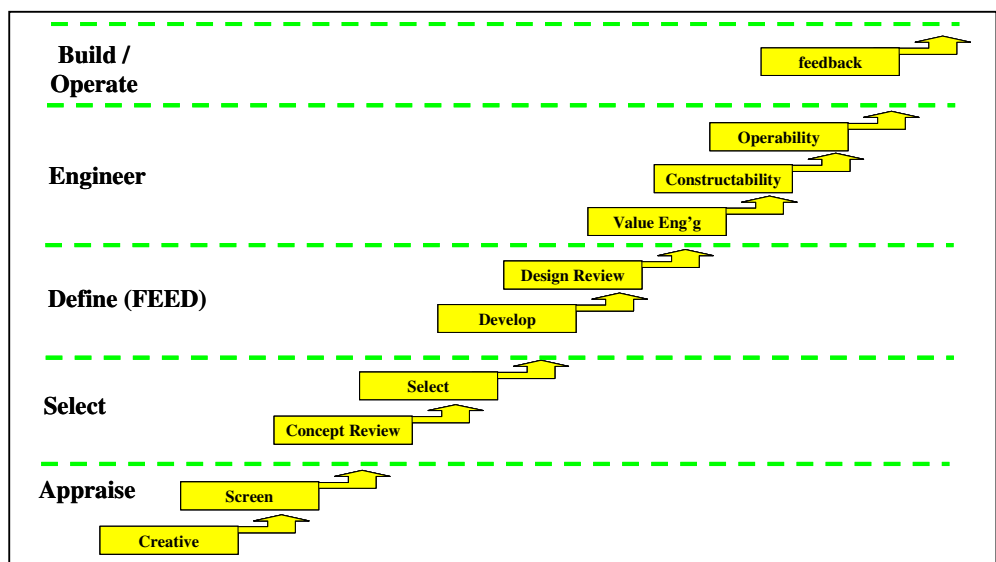
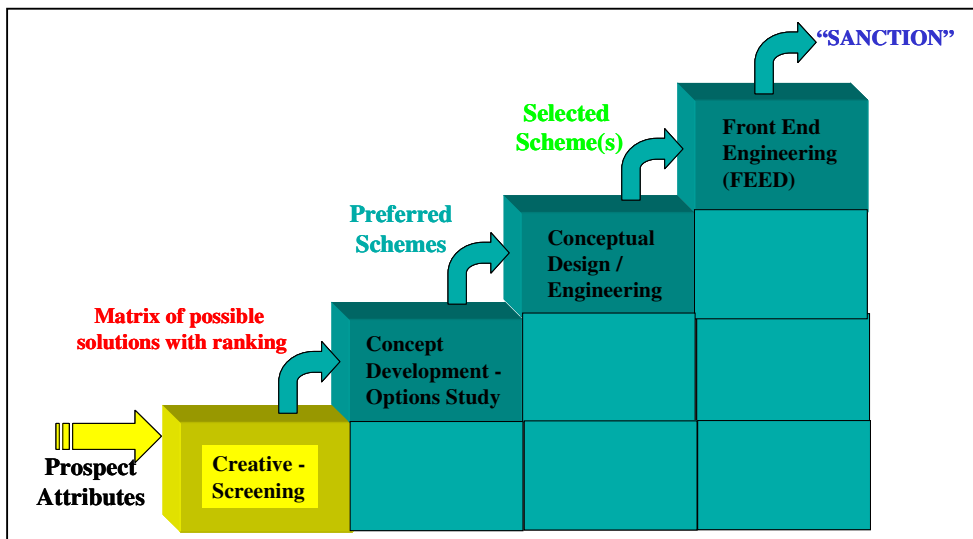
Subsequent to this workshop the team will carry out studies aimed at the confirming technical feasibility, assessing uncertainties and risks, testing sensitivities and developing budget level cost estimates. The results of these are used to assess all of the key issues, develop the transformation factors and create a ranking of the various options. These then are assembled and used as input to the third workshop.

## Review Workshop

In this, the schemes and options - with the technical and cost assessments, the rankings are subjected to the same three steps.

- Ideas – a re-work of the logic to look for missed opportunities and consider the ‘elements’ within the blocks.
- Key influences and importance, check ranking factors and quantify rankings.
- Selection and definition of the preferred scheme and its sub-options, identify uncertainties and actions

**The output from this is a technical and cost acceptable scheme ready to start the full process / concept design with the full concept studies.**



**Associates:**

Houston, USA

London, UK

Perth, Australia

Dubai, UAE

Florida, South Africa

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