CONTENTS

Introduction 02
Capability Summary 03
Asset Management 04
Subsurface and Reservoir Management 05
Field Development Planning 06
Enhanced Oil Recovery 08
Operations Management 09
Drilling Engineering 10
Drilling Project Management 11
Facilities Engineering 12
Production Assurance 12
Field Rehabilitation 13
Acquisitions And Divestitures 14
Prime Energy Projects 15
A Summary List Of The Main Projects Is As Follows: 16
Clients 23
Prime Energy Consult Ltd. (PRIME ENERGY) provides consultancy, advisory and management services spanning the upstream oil and gas business cycle. Through our integrated multidisciplinary structure, experience and methodologies we can provide clients with solutions that allow them to maximize the value of their assets.

PRIME ENERGY’s personnel have expertise in subsurface studies and reservoir management, operations management, drilling engineering and management, asset management, facilities engineering, production assurance and support services disciplines. We know what ‘best practices’ entails and as a result are able to bring unique integrated management philosophies and methodologies to help clients maximize asset value and avoid the pitfalls prevalent in our Industry.

PRIME ENERGY is flexible, value focused and can highlight the key areas where a client should focus its efforts, and we can then provide the expertise required.

PRIME ENERGY is independent, and specializes in the delivery of objective solutions to meet client’s needs in a safe and efficient manner. Consequently, the client is assured of receiving the highest quality, most cost effective solutions to meet its programme objectives.

**Integrated Approach**

PRIME ENERGY specialize in providing an integrated service and we work closely with our clients to ensure their objectives are clearly understood, our interests are aligned and that the solutions achieved add significant value. We consider our clients to be our partners. Our strength is in providing expertise in technical and commercial disciplines to the oil and gas industry at reasonable cost. We believe innovation and best industry practice are the keys to unlocking value throughout the life of the asset, from exploration and appraisal, through development and production.

**Philosophy**

PRIME ENERGY’s philosophy is to utilize highly experienced people with exceptional talents and skills, working together to provide exceptional results. Our pool of expertise includes world-class technical and operations managers, asset managers, project managers, geoscientists, drilling engineers, facilities engineers and commercial experts. Our people have held senior management positions in both major international and national oil companies. We know what it takes to run a profitable business and have been key decision makers at the ‘sharp end’. PRIME ENERGY’s staff assigned to a client’s project can draw on the collective backing of the full knowledge base of the company. Our personnel are dynamic individuals who make their clients’ goals their personal goals. This guarantees results of the highest calibre and continuous recommendation of our service by reputation.
PRIME ENERGY through its diverse experience and expertise can offer clients a wide range of capabilities customized to their needs and objectives. This Capability Summary describes the full ‘menu’ of the services and products which PRIME ENERGY offers. Elements can be taken individually or combined to suit the needs and situations of the client.

### Asset Management

PRIME ENERGY can offer an holistic approach to help clients identify optimal strategies for asset development and then assist in their implementation. We can characterize the value, risks and uncertainties of specific oil and gas assets or portfolios at any stage during the life cycle. Asset evaluation utilizes an integrated approach involving all the necessary disciplines and provides sound recommendations on strategies and actions for the optimization of value and achievement of client’s objectives.

### Subsurface & Reservoir Management

PRIME ENERGY can conduct a comprehensive subsurface evaluation and resource assessment of oil and gas assets, whether they are at the exploration, appraisal or development stage of the asset life cycle. We can back this up with economic evaluations and risk assessments to ensure that the client’s decisions are economically sound and the risks fully understood. We specialize in Field Development Planning, EOR, Production Assurance and Field Rehabilitation. We can design and manage 2D and 3D seismic programmes, gravity/magnetic and surface geochemistry programmes.

### Drilling Engineering & Project Management

PRIME ENERGY’s drilling team provides an integrated service that enable wells to be delivered safely, on time and within budget to high environmental standards. We undertake front end drilling engineering, well design and rig selection.

We provide drilling engineering and supervision, and operations geology. In particular, PRIME ENERGY specializes in the design and drilling of HPHT wells both on and offshore and can provide training and mentoring of client personnel in these high risk operations.

### Facilities Engineering & Project Management

PRIME ENERGY’s facilities team is experienced in the definition, planning and implementation of projects in diverse geographical regions and environments. During the early life cycle stages high level facility concepts can be defined to support exploration and appraisal strategies.

We can manage the selection of development concepts and focus on detailed pre-sanction planning to ensure HSE, cost, schedule and uptime objectives are delivered. We can then undertake project management during execution and start up.

### Production Assurance

PRIME ENERGY’s expertise optimises asset potential through the entire life cycle. During the production phase key activities include flow assurance, well performance optimization, removing system bottlenecks, and maintenance systems to ensure equipment availability and uptime. Our experts use network modelling and optimization for analysis of wells and facilities; and Reliability / Availability / Maintainability modelling for analysis of systems and processes. PRIME ENERGY can help clients to safely increase production and optimize ultimate recovery of reserves.

A summary of PRIME ENERGY’s capabilities is given on the following pages. For more information on any of our services, detailed capability statements and Case Studies can be provided on request. We are confident that we can provide a unique service that meets your needs.
PRIME ENERGY has extensive experience in asset management gained mostly through years of experience with major oil companies. This knowledge base encompasses all the technical and commercial aspects through the full field life cycle. We can look at the merits of the strategic options available and, working with the client, identify the optimum plan that will maximize asset value. Through the life cycle stages strategic recommendations could relate to:

- Acquisition and divestiture of assets / portfolios.
- Exploration programmes to prove up the value of an overall play or specific prospect.
- Appraisal programmes which can include drilling, extended tests and data gathering to mitigate key uncertainties.
- Field Development concept selection which can include reservoir depletion strategies, drilling approach, phasing benefits to mitigate risks and surface support facilities required.
- Later stage investments that include Field Rehabilitation, Enhanced Oil Recovery (EOR) schemes and ultimately Abandonment.

PRIME ENERGY can help clients understand their assets in terms of value, reserves and production, together with risks and opportunities. We can provide solutions as work plans that consider a range of options culminating in recommendations on an optimum way forward.

PRIME ENERGY utilizes its life cycle model which is divided into a series of stages each of which ends with a major investment decision for the investors and often the requirement for regulatory approval. We use the stages of Acquire, Explore, Appraise, Develop, Produce and finally Abandon.

Our work is undertaken through integrated teams within PRIME ENERGY collaborating with the client. Having received the data from the client, the steps that PRIME ENERGY then takes are:

- Review consistency, quality and maturity for the life cycle stage
- Design the detailed multi-disciplinary work programme focusing on data gaps, analysis and modelling required to understand the key risks and uncertainties,
- Agree the decision criteria, Base Case, sensitivities and strategic options that will be evaluated with the clients
- Develop the detailed analysis framework including economic and risk analysis models to allow focus and understanding of the key value drivers
- Progress the multi-disciplinary work with frequent review sessions and use of integration tools such as decision trees, strategy tables, schedules and production forecasts.
- Confirm the ‘deterministic’ cases then conduct risk analysis workshops involving the client to gain understanding of key risks and mitigation strategies
- Compare and contrast the strategic options available to arrive at final recommendations

The results of the assessment are documented in a report summarizing the asset assessment findings, discussing the merits of alternative strategies and then making recommendations. Once the path forward is agreed with the client PRIME ENERGY can then assist the client in progressing the recommendations to an approved plan described in other Sections of this Capability Summary (see Field Development Planning, Enhanced Oil Recovery, Production Assurance, Field Rehabilitation).
Reservoir management and the associated subsurface studies is one of PRIME ENERGY’s core areas of expertise. We have a wide range of reservoir evaluation and management experience covering all stages of asset life cycle. We can undertake reservoir evaluation projects and can manage the implementation of the results, giving us the ability to take any project from a conceptual stage to the operational stage.

PRIME ENERGY provides reservoir evaluation and management services in diverse geological settings in many basins around the world.

Our personnel have worked in a wide range of projects from hydrocarbon play assessment, through prospect analysis, to geocellular modelling and reservoir simulation to support field development studies. We use state-of-the-art software for evaluation and presentation of results. Our capabilities are founded on the following skills and expertise:

**Reservoir Studies**

- Geological studies of exploration plays and oil and gas reservoirs
- Geophysical interpretation and mapping of 2D and 3D seismic data
- High resolution aeromagnetic and gravity modelling and analysis
- Structural analysis and modelling of faults and fractures in folded structures
- Reservoir sequence stratigraphy using seismic and well data
- Petrophysical log evaluation
- Geological field mapping
- Sedimentological and reservoir definition studies
- Source rock and geochemical studies
- PVT analysis and Production Chemistry studies
- Reservoir simulation
- Defining optimum reservoir development depletion strategies
- Reservoir stimulation and well completion approaches
- Ongoing assessment of well performance and optimization opportunities
- Field rehabilitation strategies

**Operations Planning & Support**

- Design of seismic acquisition programmes
- Design of high resolution gravity and magnetic acquisition programmes
- Design of well plans and drilling programmes
- Design of formation evaluation programmes
- Operations geology and well site geology
- QA/QC of seismic acquisition and processing programmes

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete subsurface studies and projects or integrate our subsurface capability with other disciplines to conduct full field studies, such as Field Development Plans, Enhanced Oil Recovery (EOR) and Field Rehabilitation Plans. These are described in other sections of this Capability Summary. All our activities draw on our Project Management skills.
FIELD DEVELOPMENT PLANNING

PRIME ENERGY has very extensive experience of Field Development Planning of oil, wet gas and dry gas fields in many different settings worldwide. Our knowledge base encompasses all the technical and commercial aspects of field development planning and implementation. We can draw on all the necessary technical disciplines described in other Sections of the Capability Statement, including subsurface G&G, geomodelling, reservoir engineering and simulation, drilling engineering and project management, facilities engineering and HSE. Through the use of the Capital Value Process (CVP) we are able to systematically conduct the services that typically make up a Full Field Review and Field Development Plan:

Analysis

PRIME ENERGY can conduct the following key multi-disciplinary technical studies which form the basis of the FDP, incorporating and building on existing work:

Subsurface

- Compilation of available technical and economic data into an integrated asset data base.
- Seismic interpretation and mapping of 2D/3D data to produce definitive reservoir maps.
- Geological assessment of regional geology, reservoirs and seals.
- Structural modelling of faults and fractures, and identification of reservoir compartments and barriers to flow.
- Petrophysical analysis of wireline logs to provide reservoir properties.
- Static geomodelling, including construction of a geocellular model and its population with reservoir properties.
- Assessment of in-place oil and gas volumes.
- Assessment of fluid properties and well productivity and likely decline.

Development Concepts

- Design of wells, completions and assess options for artificial lift.
- Assessment of production assurance issues.
- Concept level design of facilities, process and pipelines, including network modelling.
- Definition of development options, including well spacing and associated facilities.
- Cost estimation for development drilling, facilities and operating costs.
- Decommissioning and abandonment philosophy and costs.
- If required, facilities and process design of the preferred development option(s) can be further developed to pre-FEED level. This may be required for remote, stand-alone and offshore locations.

Reservoir Simulation

- Dynamic reservoir simulation and history matching to optimize production, reserves recovery and capex investment.
- Assessment of recoverable Reserves and Resources.
- Pressure maintenance for secondary recovery.

Economic & Risk Assessment

- Economic assessment of each development option and sensitivity analysis. This will define a Base Case plan with Low and High cases.
- Assessment of risk and uncertainty for each development option.
Field Development Plan

PRIME ENERGY can then generate the Field Development Plan (FDP). This is a comprehensive document that describes the development and production of reserves over the asset life. It integrates the results of the technical studies described above and addresses the key operational, regulatory and HSE issues:

- Reservoir, reserves and production.
- Wells and completions.
- Surface facilities and infrastructure.
- Development options: Base Case, with Low and High options.
- Economic performance.
- Risk assessment.
- Reservoir management and surveillance.
- Operating philosophy, including offshore manning, well control, oil/gas metering, storage and export.
- HSE.
- Manpower and organization.
- Quality Plan.
- Risk management plan.
- Contracting & Procurement strategy.
- Change Management system

Project Sanction

Approval of the FDP and adoption of the Base Case Plan by all the stakeholders can be complex and time-consuming. This requires careful management of the client’s internal approval process, shareholders’ opinions, regulatory framework and government policy and local communities to ensure that the technical and economic drivers of the asset are not compromised.

PRIME ENERGY can assist the client at all levels of the project sanction process. Our senior managers all have major oil company experience and are familiar with the processes and procedures involved for final Board level approval. We also have broad experience with many governments and regulatory bodies worldwide and can assist in presenting the FDP such that it meets the regulatory standards.

Project Financing

Many companies choose to fund major investments from their own cash flows but at times they may need to raise funding from other sources such as Venture Capital, Project Financing, and from international financial institutions such as the World Bank, Asian Development Bank, European Bank for Reconstruction & Development etc. PRIME ENERGY can assist clients to identify possible financing sources and subsequently help with representation and negotiation, arranging third party due diligence and preparing supporting documentation.

PRIME ENERGY is able to harness all the above capabilities to suit the client’s needs. We can undertake discrete tasks as part of a client led initiative. We can also integrate our multi-disciplinary and Operations Management capabilities to fully conduct and manage Field Development Planning and subsequent execution in accordance with the client’s objectives.

We can integrate our capability with other disciplines to deliver other services described in the Capability Statement such as Asset Management, Enhanced Oil Recovery and Field Rehabilitation.
PRIME ENERGY has extensive experience of Enhanced Oil Recovery (EOR) most of it gained through many years experience with major oil companies. Our integrated EOR service runs from the initial screening study, through design and planning, to project management of the implementation. The EOR services may be applied prior to development, as part of a greenfield Enhanced Field Development Plan (EFDP), or as in incremental project later in the life of the asset.

EOR presents unique challenges so PRIME ENERGY uses its extensive knowledge base and experience through following methodology:

### EOR Screening Study
- Compilation of available technical and economic data into a data base
- High level review of the reservoir model and reservoir simulation
- Identify appropriate EOR process
- Screening economic assessment with recommendation of the optimum EOR process

### EOR Detailed Study & Pilot Design
- Design and supervision of special coreflood studies
- Reservoir simulation using results of special coreflood studies
- Optimize EOR process for reserves recovery and reservoir conditions
- Cost estimation of wells and facilities
- Economic evaluation of EOR Pilot project, including optimization and sensitivity analysis
- Risk and uncertainty assessment
- Design pilot project for the EOR process, including well design and facilities

### Project Management of EOR Pilot Implementation
- Project management (PM) of injector well drilling and completion
- PM of facilities engineering, construction, installation, hook-up and commissioning
- Compilation and analysis of well surveillance data to assess effectiveness of Pilot project

### EOR Full Field Design
- Reservoir simulation for the full field implementation using results of Pilot project
- Optimize EOR process for reserves recovery and reservoir conditions
- Design of injector and producer wells and well surveillance
- PM of engineering design of all EOR facilities
- Cost estimation of all drilling and EOR facilities
- Economic evaluation, including optimization and sensitivity analysis
- Risk and uncertainty assessment

### Project Management of EOR Full Field Implementation
- PM of injection and production well drilling and completion
- PM of facilities engineering, construction, installation, hook-up and commissioning
- Compilation and analysis of well surveillance data

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete tasks as part of a client led initiative or integrate our EOR capability with other disciplines to conduct full field studies, such as Field Development Plans and Field Rehabilitation. We can also integrate our multi-disciplinary and Operations Management capabilities to fully manage an EOR Programme in accordance with the client’s objectives liaising closely on progress, key issues, decisions and approvals.
PRIME ENERGY is experienced in operations management of oil and gas assets to deliver the client’s strategic plans throughout the asset life cycle. We can provide full operational support to clients for the following activities:

- Seismic Acquisition and Processing, Gravity, Magnetics and Surface Geochemistry
- Drilling
- Oil and Gas Production

PRIME ENERGY has a seasoned team of senior operations managers each with over 25 years experience with major operators in the oil and gas industry and who are backed up by our experienced technical staff. We have delivered demanding projects, often in remote and hostile environments, under budget and to very tight schedules. Recent projects include drilling of two HPHT wells in the Bay of Bengal, Bangladesh; management of remote exploration operations in Turkana, NE Kenya; management of drilling and gas-condensate field production operations in the Carpathians and Dnieper-Donets basin, Ukraine; and management of drilling and installation of an early oil production facility in the Gulf of Thailand.

Using industry best practice Capital Value Process we can develop detailed tactical plans and then execute them drawing on our expertise in project management.

We use Project Management techniques to set realistic objectives prior to project sanction. Project delivery is then systematic and controlled, consistent with initial expectations. The complexity of projects tends to increase exponentially with size and budget and consequently there is a need for project management systems to become increasingly sophisticated.

PRIME ENERGY has the expertise to advise the client on the level Project Management that is appropriate for a specific project and then manage the project during execution. We place great emphasis on the Planning Phase (Appraise > Select > Define) and can provide a suite of project-specific deliverables prior to Execution, including:

- Project scope, cost and integrated schedule
- Execution Plan, Procedures and Systems
- Organisation with key positions filled
- Quality Control systems
- HSE Philosophy and Plan
- Risk management plan

Thorough planning puts the client in control of project Execution and not forever in catch-up mode. PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can manage discrete tasks as part of the client’s overall team or provide operations management to deliver any of the services described in this Capability Statement.
PRIME ENERGY personnel have extensive experience in maturing the definition of reservoir drilling plans through the early stages of the asset life cycle up to full investment sanction. In each of the early stages the role entails the design of the next phase of wells coupled with providing inputs to the assessment of the viability of an eventual development.

Our Capabilities are founded on the following skills and expertise:

- Drilling Project Management techniques and integration with other disciplines
- Pore pressure prediction and management
- Mud system design and specification including environmental considerations
- Cuttings disposal planning
- Casing scheme design and specification
- Directional drilling design and specification
- Data acquisition planning
- Design of completions and stimulation programmes
- Rig selection and specification
- Risk assessment and contingency planning
- Techniques for High Pressure / Temperature drilling (HP/HT)
- Cost and schedule estimates for both individual wells and programmes

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete drilling studies and projects drawing on our Project Management skills. We can also integrate our drilling capability with other disciplines in larger studies or Programme Management to deliver other services, such as Drilling Project Management, which are described in other sections of the Capability Statement.
One of PRIME ENERGY’s core competencies is drilling project management. Our personnel have diverse backgrounds, spanning the theoretical, analytical and practical, giving us the ability to take any solution from a conceptual stage all the way to execution. We have particular expertise in the drilling of demanding HP/HT wells. We use the Capital Value Process (CVP) through the following methodology:

**Planning Stage**

PRIME ENERGY has a suite of policies, procedures, technical tools and methodologies based on its extensive experience. These are customized for the client’s particular requirements and the well type. We can thus considerably reduce the inherent financial and safety risks involved. All eventualities are considered and extensive contingency planning is undertaken rather than assuming ‘everything will go well’. Key activities during the planning stage are:

- Establish a team of dedicated and competent people in key positions.
- Structured planning with extensive up-front engineering, risk and contingency planning.
- Adequately equipped rig which is fully inspected and set up for performance.
- Training focused on “how to stay out of trouble”.
- Developing a good understanding and relations with local regulators.
- Identification and proper use of detection tools and practices.
- Good communications systems that promote team work amongst all disciplines.
- Early engagement of the key service suppliers to bring them into the integrated team.
- Supply chain management with strong focus on Quality Assurance (QA) on equipment.
- Establish HSES policies, procedures and working practices, including training.
- Tendering and Contracts management services that are best for project.

Execution PRIME ENERGY can manage the execution providing the complete range of integrated services required for successful completion. Specifically we can undertake the following:

- Integration with subsurface disciplines, operations and asset management
- Ensure an effective and integrated organisation
- HSE management and supervision
- Drilling management and supervision
- Well-site supervision including well site geology, operations geology, well stimulation, completion and workover operations
- Set up and provision of on-line reporting for each drilling and well service.
- Supply chain, and logistics management (land and marine) and supervision
- Training of all levels of personnel involved, with special emphasis on HPHT
- Real time cost and schedule management, information and projections
- Inspections and audits to confirm compliance with policies and procedures
- Liaison with regulators ensuring compliance
- Contingency planning and emergency response management

PRIME ENERGY are also able to provide a full range of support services from its in-house resources including crucial areas like pore pressure specialists, mud and cementing, engineers, environmental and waste management and lastly blow-out modelling, well flow dynamics.

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete drilling tasks as part of a client led initiative. We can also integrate our multi-disciplinary and Operations Management capabilities to fully run a Drilling Programme in accord with the client’s objectives liaising closely on progress, key issues, decisions and approvals.
PRIME ENERGY has extensive experience in the concept design of surface facilities as it matures from the early stages of an asset’s life cycle up to full investment sanction. The role progressively changes from providing ‘ball park’ cost and schedule data as input to exploration prospects through to final scope, cost and schedule numbers for a full development project. Our capabilities are founded on the following skills and expertise:

- Engineering studies from early Concept level through to FEED (FEL2/3)
- Understanding the definition maturity expected at each Life Cycle and CVP decision gate
- Safety design including QRA and the use of techniques like HAZOP / HAZID
- Regulatory requirements and appropriate Codes and Standards
- Preparation of Statement of Requirements (SOR) and Basis of Design (BOD) documents
- Liaison with subsurface disciplines on areas like PVT data, production chemistry and data acquisition requirements
- Liaison with drilling disciplines on requirements within the facilities design and special considerations such as SIMOPS
- Interface with production operations disciplines on requirements for operability and maintainability within the facilities design including RAM analysis
- Cost estimation including appropriate allowances, factors and contingency sums
- Integrated Planning to understand the Critical Path and the management of ‘float’

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete facilities studies and projects drawing on our Project Management skills. We can also integrate our facilities capability with other disciplines in larger studies or Operations Management to deliver the services described in other sections of this Capability Summary, including Field Development Plans, Production Assurance, Enhanced Oil Recovery and Field Rehabilitation.

PRIME ENERGY has extensive experience of managing large oil and gas fields in both onshore and offshore settings. We understand the technical and commercial levers that maximize the profitability of producing assets.

During the Develop stage of the asset life cycle, production assurance expertise is vital for initial planning of the CVP. This ensures the eventual handover of facilities that can perform at the design specifications, projected uptime, maintenance and operating costs. Later during the Produce stage, regular reviews of the asset’s performance can identify significant value gains, particularly where changes in the base-line assumptions, whether technical, commercial or contractual, can result in non-optimum performance or present opportunities for potential gains. Solutions may include infill drilling, recompletion, artificial lift, process de-bottlenecking, cost per barrel Opex reduction, application of new technology, near-field exploration and third party business.

Our capabilities are founded on the following skills and expertise:

- System network modelling for production optimization and de-bottlenecking
- Analysis of availability and uptime using RAM analysis
- Workover, recompletion and infill drilling opportunities
- Design of well stimulation and artificial lift
- Assessment and design of secondary recovery / pressure maintenance
- Enhanced Oil Recovery and improved oil recovery techniques
- Optimization of production chemistry and cost
- Corrosion and materials management
- Operational procedures, safety and environmental management
- SIMOPS management with drilling and facilities construction
- Review of Third Party business through owned infrastructure
- Infrastructure-led exploration

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete production assurance studies and projects drawing on our Project Management skills. We can also integrate our production assurance capability with other disciplines in larger studies or Operations Management to deliver other services described in this Capability Summary such as Field Development Plans, Asset Management, Enhanced Oil Recovery and Field Rehabilitation.
FIELD REHABILITATION

PRIME ENERGY has extensive experience of Field Rehabilitation in many different settings including the Middle East, Africa, Eastern Europe, Russia and Central Asia. We can assist clients by harnessing the multi-discipline expertise and capabilities as described in the previous Field Development Planning section. Field Rehabilitation, however, presents particular challenges so PRIME ENERGY uses its extensive knowledge base and experience through some or all of the following methodology:

**Technical Studies**
- Examine well data to understand drilling and completion performance, well construction methods, well logging results and the results of previous workovers.
- Conduct petrophysical log analysis of all wells and run additional cased hole logs, if required, and inspect the well-site to identify the best candidates for behind-pipe pay, rehabilitation and repair.
- Interpret well test data to calculate well and reservoir properties and determine potential for reservoir damage (skin).
- Analyze production performance of the wells, including oil, water and gas production to identify performance potential under ‘ideal’ conditions and confirm reservoir properties.
- Perform single-well modelling to estimate likely performance improvement from a variety of wellbore clean-up, stimulation, workover and re-drill options.
- Risk the single well profiles and build up into a full-field production forecast.
- Correlate the reservoir zones and determine the effective drainage for each well to identify undrilled reservoir zones and compartments, and undrained infill locations.
- Identify candidate wells for sidetracking and/or deepening and locations for infill drilling.
- Assess the condition of current facilities and determine the need for remedial work, debottlenecking and where new facilities are required.

**Cost Estimation & Economics**
- Design and cost well intervention/workover and drilling programmes on the selected wells; and facilities debottlenecking.
- Carry out a full economic cost-benefit analysis for accelerated and/or incremental production.

**Implementation & Monitoring**
- Project manage the implementation of well intervention/workover and drilling programme, and facilities debottlenecking.
- Pay particular attention to scoping brownfield work and possible SIMOPS with drilling and existing production activities.
- Monitor performance to compare with the pre-job data and evaluate the benefits of the rehabilitation program.

PRIME ENERGY uses the above methodology to identify and characterize possible Field Rehabilitation options. The relative merits of each option can then be assessed and recommendations made to the client on the way forward.

PRIME ENERGY is able to harness the above capabilities to suit the client’s needs. We can undertake discrete tasks as part of a client led initiative or integrate our Field Rehabilitation capability with other disciplines to conduct full field studies, such as Field Development Plans, Enhanced Oil Recovery (EOR) and Production Assurance. We can also integrate our multi-disciplinary and Operations Management capabilities to fully manage a Field Rehabilitation Programme in accord with the client’s objectives, liaising closely on progress, key issues, decisions and approvals.
ACQUISITIONS AND DIVESTITURES

PRIME ENERGY can harness its broad expertise across the technical and commercial functions described in other Sections of this Capability Summary to assist clients in oil and gas asset / portfolio acquisition and divestiture transactions (A&D). We can also provide expert advice on rationalizing and managing asset portfolios to maximize value and balance risk.

Acquisitions present particular challenges so PRIME ENERGY uses its extensive knowledge base and experience through the following services:

- Data gathering either from the client or through or at Data Rooms
- Assessing the completeness and validity of the data through cross checks and comparison with analogues
- Subsurface review and modelling to understand technical uncertainties and risk
- Determining reserves and production profile ranges
- Reviewing and/or identifying reservoir development, drilling, facilities and production options
- Cost estimation and scheduling of drilling and facilities
- Economic assessment and sensitivity analysis of the assets based on the fiscal regime
- Risk assessment of technical, commercial and legal issues
- Advice on bidding and negotiation strategies
- Assistance with negotiation and review of contract terms, including Production Sharing Agreements, Concession Agreements, Farm In Agreements, Purchase and Sales Agreements

Divestitures follow a similar process to Acquisitions where Prime Energy can assess the value and risk profile of the assets and then advise the client on the best approach to presenting and marketing the assets for sale.

PRIME ENERGY can provide the above capabilities to suit the client’s needs. We can undertake discrete A&D tasks as part of a client led initiative. We can also integrate our multi-disciplinary and technical and operational capabilities to be the principal advisor on all aspects of A&D. At all times the client remains fully in control of the A&D process. The client’s objectives are paramount and we liaise closely on all key issues, decisions and approvals.
PRIME ENERGY have completed projects in more than 50 countries as shown below. These span desk top evaluations through operational projects in client offices or in field locations.
A SUMMARY LIST OF THE MAIN PROJECTS IS AS FOLLOWS:

Afganistan
- Technical evaluation of shut-in oil fields.

Albania
- Technical evaluation and reserves assessment of 3 heavy oil fields and Delvina gas field.

Algeria
- Well performance and surface network modelling, Hassi Messaoud.
- Petroleum economics training.
- Reservoir geomodeling study of major onshore oilfield.
- Technical evaluation of opportunities in Algerian bid round.

Azerbaijan
- Petroleum engineering training.
- Technical evaluation of onshore field rehabilitation projects.
- Technical evaluation of onshore field rehabilitation projects.

Brazil
- Prospect evaluation and economic screening of onshore and offshore blocks.

Cameroon
- Advice and training for 2010-11 drilling campaign offshore Cameroon.

Canada
- Identification and screening of assets in Middle East, Africa and FSU to build upstream portfolio.

Chad
- Subsurface evaluation, facilities design, field audit and screening economics of onshore oilfields.

Colombia
- Prospect evaluation and economic screening in several basins.

Egypt
- Well program review, detailed drilling program review and rig audit
- Asset evaluation of producing fields & exploration onshore Gulf of Suez.
- Petroleum engineering training.

Bahrain
- Asset evaluation of an undeveloped reservoir in onshore oil field.

Bangladesh
- Drilling Project Management for 2 HP/HT offshore exploration wells.
Ethiopia

• Production modelling and well design optimization for Block 8.
• Seismic interpretation, prospect mapping and resource assessment of Block 8.
• Drilling engineering and drilling project management of an exploration well on the El Kuran structure, Block 8.
• Preparation of multi-well tenders for projects in Ethiopia and Kenya.

Georgia

• Provision of well site geologists for onshore drilling program.

India

• Design audit study for ethylene tanker terminal, storage and process plant.
• Logistics & marine support to onshore and offshore rig moves.

Indonesia

• Full project management for 32" offshore pipeline lay.
• Technical and commercial advisor on field re-habilitation in Irian Jaya.

Iran

• Commercial feasibility study of a major downstream project.
• Project management of demanding offshore pipe-lay projects.
• Survey of offshore platforms in the Nowrooz; Surroush; and Nasr fields, jackets and topsides.

Iraq

• Supervision of drilling operations in the Sangaw North, northern Iraq.
• Supervision of drilling operations in the Atrush Block, northern Iraq.
• Supervision of exploration drilling operations in Block K4.
• Supervision of drilling operations for Khor Mor Field.
• Supervision of drilling operations in southern Iraq.
• Field development, tendering and facilities commissioning and supervision for new field in south east of Kurdish region.
• Full field development project management for oil field in Northern Iraq.
• Full logistics and procurement services for Early and Central Production Facility and infield pipeline, export pumps, tank farm etc, in Northern Iraq
• Full logistics and procurement services for field development, tendering and facilities commissioning and supervision for new field in south east of Kurdish region.
• Geological evaluation and reserve assessment of Jebel Kand structure, Kurdistan.
• Kurdistan Region exploration acreage evaluation Kurdistan.
• Project management and logistics services for Early and Central Production Facility and infield pipeline, export pumps, tank farm etc, in Northern Iraq.
• Provision of senior drilling engineer for major onshore development drilling programme.
• Well engineering, rig inspection and drilling supervision for two large gas fields in Kurdistan.
Kazakhstan

- Development of three oil fields and pipeline export projects.
- Development of three oil fields and pipeline export projects.
- Feasibility study for establishing a logistics base in the Caspian.
- License acquisition for client leading to discovery of oil field and provision of technical services.

Kenya

- Preparation of multi-well tenders for projects in Ethiopia and Kenya.
- Integrated technical G&G evaluation and operational/logistics support for a 3 year exploration programme including seismic acquisition and drilling.
- Provision of Country Manager with responsibility for all in-country operations and relations with government and contractors.

Kuwait

- Surface-subsurface integration for smart field implementation pilot project for Sabriyah Field.
- Raudhatain Zubair field development plan (geophysics, petrophysics, geomodelling and reservoir simulation).
- Sedimentological study of the Makhul reservoir, onshore Kuwait.
- Sedimentological study of the Shuaiba reservoir, onshore Kuwait.
- Assessment of waterflood options and corrosion assessment for a major onshore oil field.
- Assessment of waterflood options and corrosion assessment for a major onshore oil field.
- Evaluation of EOR options for North Kuwait fields.
- Improvement in operation of water and effluent treatment plant.
- Improvement in operation of water and effluent treatment plant.
- Lower Fars Heavy Oil and steam supply study.
- Lower Fars Heavy Oil network and steam supply study
- Lower Fars Heavy Oil network and steam supply study
- Major inspection of gas turbines for power plant.
- Multi-field study on the sedimentology of the Jurassic reservoirs in Northern Kuwait.
- Petroleum economics training.
- Preparation of a program to diversify client’s activities into the oil & gas sector.
- Preparation of engineering EPC tender for $900 mm terminal upgrade.
- Reservoir sedimentology of the SE Burgan field.
- Sedimentological study of Ratawí Field.
- Thin section, SEM, XRD and CL analytical work to support reservoir studies.

Korea

- Due diligence for Price Waterhouse Korea regarding a new Rig Construction facility in Saudi Arabia.
Madagascar

- Hydrocarbon prospectivity assessment of onshore and offshore exploration acreage.

Malaysia

- Project management for tender and new pipe-lay barge.

Mozambique

- Inspection and audit of site survey vessel.
- Drilling engineering and drilling project management for an offshore exploration well in Block 10.
- Seismic interpretation, prospectivity assessment and resource evaluation of offshore Block 10.

Nigeria

- Review and valuation of onshore assets.

Oman

- Sedimentological and petrographic study of Mukhaizna Field.
- Petroleum Engineering advice on field development plan for West Bukha Field.
- Sedimentological study of Mukhaizna Field.

Pakistan

- Asset valuation of non-producing gas field in Lower Indus and exploration acreage assessment in Kirthar Foldbelt, and Potwar and Lower Indus Basins.
- Supervision of drilling operations for onshore exploration/appraisal drilling programme.
- Warranty survey of tanker discharge terminal; design audit for hazardous cargo/bulk liquid terminal; and way leaves study for new port facilities at Port Qasim.

Peru

- Commercial evaluation of three large heavy oil fields.

Philippines

- Asset management services and supervision of local personnel.
- Evaluation and reserves assessment of Cadlao, Nido and Matinlock fields.
- Evaluation of new business opportunities.
- Full field decommissioning cost estimation.
- Logistics and Procurement services for various clients.
- Sedimentological study of cores from Galoc field.
<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qatar</td>
<td>- Field Development planning of Jurassic Araej and Uwainat reservoir.</td>
</tr>
<tr>
<td></td>
<td>- Reservoir modeling and petrophysical evaluation.</td>
</tr>
<tr>
<td></td>
<td>- Design modifications of offshore production platform.</td>
</tr>
<tr>
<td></td>
<td>- Engineering design and installation of pipelines.</td>
</tr>
<tr>
<td></td>
<td>- Evaluation of offshore exploration acreage.</td>
</tr>
<tr>
<td></td>
<td>- Full project management for offshore pipeline lay.</td>
</tr>
<tr>
<td></td>
<td>- Hook-up of facilities platform.</td>
</tr>
<tr>
<td></td>
<td>- Preparation of claim by major contractor on completion of offshore</td>
</tr>
<tr>
<td></td>
<td>construction project with value of US$25 million.</td>
</tr>
<tr>
<td>Somalia</td>
<td>- Drilling engineering and drilling project management.</td>
</tr>
<tr>
<td></td>
<td>- Gas utilization feasibility study.</td>
</tr>
<tr>
<td>Sudan</td>
<td>- Update of gas utilization study.</td>
</tr>
<tr>
<td></td>
<td>- Provision of FDP operations and drilling management services.</td>
</tr>
<tr>
<td></td>
<td>- Provision of senior drilling superintendent for major offshore development</td>
</tr>
<tr>
<td></td>
<td>drilling programme.</td>
</tr>
<tr>
<td>Syria</td>
<td>- Technical evaluation of exploration acreage.</td>
</tr>
<tr>
<td>Thailand</td>
<td>- Sedimentological and petrographic study of a offshore oil field.</td>
</tr>
<tr>
<td></td>
<td>- Supervision of Operations and HSE for Songkhla Field.</td>
</tr>
<tr>
<td></td>
<td>- Provision of senior drilling superintendent for major offshore development</td>
</tr>
<tr>
<td></td>
<td>drilling programme.</td>
</tr>
<tr>
<td>Tunisia</td>
<td>- Well test design, supervision and analysis of an exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Supervision of drilling operations onshore exploration wells.</td>
</tr>
<tr>
<td></td>
<td>- Management of drilling operations for an onshore exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Evaluation and reserves assessment of Biban, Robbana and Ezzaouia Fields.</td>
</tr>
<tr>
<td>Russia</td>
<td>- Review of production, crude oil processing, storage and export facilities</td>
</tr>
<tr>
<td></td>
<td>- Subsurface advice for project financing.</td>
</tr>
<tr>
<td></td>
<td>- Improvement of gas plant safety and performance in Western Siberia.</td>
</tr>
<tr>
<td></td>
<td>- Improvement of gas plant safety and performance in Western Siberia.</td>
</tr>
<tr>
<td></td>
<td>- Management of evaluation &amp; acquisition of producing assets in Western</td>
</tr>
<tr>
<td></td>
<td>Siberia.</td>
</tr>
<tr>
<td></td>
<td>- Technical &amp; commercial evaluation of field development projects in</td>
</tr>
<tr>
<td></td>
<td>Timan Pechora.</td>
</tr>
<tr>
<td></td>
<td>- Technical and commercial asset evaluation of oil fields in Yakutia,</td>
</tr>
<tr>
<td></td>
<td>Eastern Siberia.</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>- Coil tubing rig study for use in Saudi Arabia.</td>
</tr>
<tr>
<td>Sudan</td>
<td>- Update of gas utilization study.</td>
</tr>
<tr>
<td></td>
<td>- Gas utilization feasibility study.</td>
</tr>
<tr>
<td>Syria</td>
<td>- Technical evaluation of exploration acreage.</td>
</tr>
<tr>
<td>Tunisia</td>
<td>- Well test design, supervision and analysis of an exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Supervision of drilling operations onshore exploration wells.</td>
</tr>
<tr>
<td></td>
<td>- Management of drilling operations for an onshore exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Evaluation and reserves assessment of Biban, Robbana and Ezzaouia Fields.</td>
</tr>
<tr>
<td>Thailand</td>
<td>- Sedimentological and petrographic study of a offshore oil field.</td>
</tr>
<tr>
<td></td>
<td>- Supervision of Operations and HSE for Songkhla Field.</td>
</tr>
<tr>
<td></td>
<td>- Provision of FDP operations and drilling management services for an offshore oil field development.</td>
</tr>
<tr>
<td></td>
<td>- Provision of senior drilling superintendent for major offshore development drilling programme.</td>
</tr>
<tr>
<td>Tunisia</td>
<td>- Well test design, supervision and analysis of an exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Supervision of drilling operations onshore exploration wells.</td>
</tr>
<tr>
<td></td>
<td>- Management of drilling operations for an onshore exploration well.</td>
</tr>
<tr>
<td></td>
<td>- Evaluation and reserves assessment of Biban, Robbana and Ezzaouia Fields.</td>
</tr>
</tbody>
</table>


Turkey

- Technical and economic assessment of assets in Turkey and Ukraine.
- Petroleum Engineering studies for Field Development Plans of offshore gas fields.

United Arab Emirates

Abu Dhabi

- Seismic velocity modelling and reservoir mapping of the Thamama reservoir, Mubarraz Field.
- Umm al Dalkh field seismic sequence stratigraphy study.
- Production measurement and reporting review for major offshore oil field in Abu Dhabi.
- Review of all onshore and offshore gas injection and recycling projects.

Sharjah

- Seismic interpretation and mapping of onshore Sharjah exploration prospects.
- Management of drilling operations for an onshore exploration well.
- Mubarek Field reservoir re-development plan, drilling and operational support.
- Mubarek Field reservoir re-development plan, drilling and operational support.
- Drilling and operational support for redevelopment of Mubarek Field.

- General Safety training
- Industrial Safety Training Course.
- Procurement Services for various clients regarding drilling equipment.
- Project management of pipeline projects.
- Safety Awareness Programme for Engineers/Project Managers.
- Safety Awareness Programme for Junior Engineers, Supervisors and Foremen.
- Safety Awareness training

United Kingdom

- Well engineering and drilling audits of safety and operational risk.
- Advice on drilling project planning for independent UK operator.
- Logistics and Procurement services for various clients
- Petroleum economics training.
- Project management for refinery shut down & modification.
- Provision of drilling management services for a UK Operator.

Ukraine

- Provision of senior corporate and operations management for a UK listed operator.
- Drilling engineering and well design for appraisal well on Karlovskoye Field, Crimea.
- Technical and economic assessment of assets in Ukraine.
- Commercial and technical advice on investing in oil and gas development projects.
- Technical and commercial evaluation of producing gas fields and exploration acreage.
- Technical assessment of 11 E&P assets and organizational review of a Western operator.

United State of America

- Site inspection and audit of production facilities in Louisiana
- Petroleum engineering training.
- Review and resource assessment of producing assets and unconventional plays in the Rockies.
- Review of opportunities in Cook Inlet basin, Alaska.
Uzbekistan

- Technical and economic evaluation for redevelopment of oil fields in Ferghana Basin.

Yemen

- Assessment of producing assets and exploration potential in Block 9, Yemen.
- Project management of a major production facility and permanent field accommodation.
- Project management of new offices and housing construction.
CLIENTS

PRIME ENERGY’s client list spans the upstream oil and gas sector ranging from small independents to major international and national oil companies, and major service contractors.

- ADCO (Abu Dhabi Company for Onshore Oil Operations)
- Africa Oil Corp
- Africa Oil Ethiopia BV
- Altima Partners LLP
- Ansan Wikfs Limited
- Aurado Exploration Inc
- BP PLC
- Cadogan Petroleum PLC
- Cairn Energy PLC
- Cairn Energy Sangu Field Limited
- Canmex Holdings Bermuda Ltd
- Central Asian Enterprises LLC
- Circle Oil PLC
- Concorde Oil & Gas
- Crescent Petroleum Company
- Curcas Energy Ltd
- Delta Oil Company
- Dewan Petroleum (Pvt) Ltd
- DNO International ASA
- Dubai Petroleum Company
- East African Exploration (EAX)
- EuOil Limited (Bowleven)
- Forum Energy Philippines Corporation
- Fronterra Eastern Georgia Limited
- Galoc Production Company
- GEN Labs (Thailand) Co. Ltd.
- General Exploration Partners, Inc. (Aspect Energy)
- Greater Nile Petroleum Operating Company Ltd (GNPOC)
- Halliburton Energy Services Inc
- Halliburton Overseas Ltd
- Halliburton Worldwide Ltd
- Harvest Natural Resources Inc.
- Impact Petroleum Corp.
- Japan Petroleum Exploration Co. Ltd.
- Jura Energy Group Ltd.
- Kuwait Oil Company
- Kvaerner Oil & Gas Limited
- Landmark Graphics (M) SDN BHD
- Larsen Oil & Gas Ltd
- Leighton Contractors (Malaysia) SDN BHD
- Mitsui E&P Middle East BV
- Nabors Drilling International Gulf FZE
- Nexen Petroleum International Ltd (Dubai)
- Novatek Overseas E&P
- NuCoastal (Thailand) Limited
- Occidental Mukhaizna LLC
- Orient Petroleum (Central Asia), Ltd
- Petroleum Explorations (Pvt.) Ltd. (PEL)
- Petrogas E&P LLC
- PetroVista Energy Corp.
- PTTEP (PTT Exploration & Production PCL)
- Qatar Petroleum
- RAK Petroleum Ltd.
- ROC Oil Company Ltd
- Samil PricewaterhouseCoopers (Samil PWC)
- SASOL Petroleum International (Pty) Ltd
- Seenergy (GB) Ltd
- Sky Petroleum Inc.
- SONATRACH spa
- Sterling Energy PLC
- Target Resources SDN BHD
- Texada Ventures Inc
- Tiway Oil AS
- TRACS International Ltd
- Transeuro Energy Corp.
- Turkana Energy Inc
- Vitol Services Limited
- Weatherford Drilling Intl
- Weatherford Oil Tool ME Ltd
- Willstar Energy Intl
- Winstar Tunisia BV
- Wood Group Engineering Services PLC
- Worldwide Petroleum Services LLC
- ZADCO (Zakum Development Company)
 MANAGEMENT TEAM

Peter Bradley  Managing Director  pbradley@primeenergyconsult.com
Burnie Simpson  Technical Director  bsimpson@primeenergyconsult.com
Wayne Longstreet  Operations Director  wlongstreet@primeenergyconsult.com

 CONTACT INFORMATION

Head Office
PRIME ENERGY
Al Moosa Tower 1, Suite #1401, 1402
Sheikh Zayed Road, PO Box 72784,
Dubai, United Arab Emirates.
Tel: +971 4 359 0607/8
Fax: +971 4 359 0609
www.primeenergyconsult.com