

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt about the contents of this document, or the action you should take, you are recommended to seek your own financial advice immediately from your stockbroker, solicitor, accountant or other independent financial adviser who is authorised for the purposes of the Financial Services and Markets Act 2000 (as amended) (the "FSMA") and who specialises in advising on the acquisition of shares and other securities in the United Kingdom.

This document, which comprises an admission document required by the AIM Rules for Companies, has been prepared in connection with the proposed application for re-admission of the Issued Share Capital to trading on AIM, a market of London Stock Exchange plc. This document is an admission document drawn up in accordance with the AIM Rules for Companies and does not constitute a prospectus for the purposes of section 85(1) of the FSMA. If you have sold or otherwise transferred all of your Ordinary Shares, please forward this document, together with the accompanying documents, at once, to the purchaser or transferee or to the bank, stockbroker, or other agent through whom the sale or transfer was effected for transmission to the purchaser or transferee. However, such documents should not be forwarded or transmitted into Canada, Australia, Japan, New Zealand or South Africa ("Excluded Territories") or into the United States or into any other jurisdiction if to do so would constitute a violation of the relevant laws of such jurisdiction. The distribution of this document into jurisdictions other than the United Kingdom may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restrictions. Any failure to comply with those restrictions may constitute a violation of the securities laws of any such jurisdiction.

The Directors, whose names appear on page 4 of this document, and the Company accept responsibility for the information contained in this document including collective and individual responsibility for the compliance with the AIM Rules for Companies. To the best of the knowledge of the Directors and the Company (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and contains no omission likely to affect its import. The Directors and the Company accept responsibility accordingly.

Application will be made for the Issued Share Capital to be admitted to trading on AIM. AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk tends to be attached than to larger or more established companies. AIM securities are not admitted to the official list of the Financial Services Authority (the "Official List"). A prospective investor should be aware of the risks of investing in such companies and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser. Each AIM company is required pursuant to the AIM Rules for Companies to have a nominated adviser. The nominated adviser is required to make a declaration to the London Stock Exchange on admission in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. The London Stock Exchange has not itself examined or approved the contents of this document. The whole of the text of this document should be read and your attention is drawn to the section entitled "Risk Factors" for a discussion of certain factors which should be taken into account in considering whether or not to invest in the Company. The whole of this document should be read in light of those risk factors. The Issued Share Capital is not traded on any other recognised investment exchange and save for the application for admission to AIM, no such applications have been made or will be made. It is expected that admission to AIM will become effective and that dealings in the Issued Share Capital will commence on AIM on or around 12 December 2011.

The whole text of this document should be read and in particular YOUR ATTENTION IS DRAWN TO THE RISK FACTORS SET OUT ON PAGES 5 TO 12 OF THIS DOCUMENT.



## IGas Energy plc

(Incorporated in England and Wales with Registered No. 04981279)

### Proposed acquisition of Star Energy Group Limited

#### Re-admission to trading on AIM

#### Notice of General Meeting

#### Nominated Adviser and Broker

#### RBS Hoare Govett Limited

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### SHARE CAPITAL AT AND IMMEDIATELY FOLLOWING ADMISSION

Ordinary Shares of 50p each

Issued and fully paid

Amount	Number
£80,161,860.50	160,323,721

RBS Hoare Govett Limited ("RBS Hoare Govett"), which is regulated and authorised in the United Kingdom by the Financial Services Authority, is acting exclusively for the Company as nominated adviser and broker for the purposes of the AIM Rules for Nominated Advisers and the AIM Rules for Companies. RBS Hoare Govett is not acting for any other person and will not be responsible to any person for providing the protections afforded to its clients or for advising any other person on the contents of any part of this document. RBS Hoare Govett is not making any representation or warranty, express or implied, as to the contents of this document. The responsibilities of RBS Hoare Govett, as the nominated adviser are owed solely to the London Stock Exchange and are not owed to the Company or any other Director or to any other person, in respect of any decision to acquire Ordinary Shares in reliance on any part of this document or otherwise.

This document does not constitute an offer to sell, or solicitation of an offer to buy, shares in any jurisdiction in which such an offer or solicitation is unlawful and, in particular, is not for distribution into the United States, or issue into Australia, Canada, Japan, South Africa or the Republic of Ireland. The Ordinary Shares have not been, nor will be, registered in the United States under the United States Securities Act of 1933, as amended, or under the securities laws of Australia, Canada, Japan, South Africa or the Republic of Ireland. Accordingly, they may not be offered or sold, directly or indirectly, within the United States, Australia, Canada, Japan, South Africa, New Zealand or the Republic of Ireland or to, or for the account or benefit of, any person, in or any national, citizen or resident of, the United States, Canada, Japan, South Africa, New Zealand or the Republic of Ireland. The distribution of this document outside the United Kingdom may be restricted by law and therefore persons outside the United Kingdom into whose possession this document comes should inform themselves about and observe any restrictions as to the Ordinary Shares and the distribution of this document.

**Each AIM company is required pursuant to the AIM Rules for Companies to have a nominated adviser. The nominated adviser is required to make a declaration to the London Stock Exchange in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. The London Stock Exchange has not itself examined or approved the contents of this document.**

As contemplated pursuant to this document and in accordance with the company being treated as a new applicant under the AIM Rules, the posting of this document will result in the current suspension of trading in the Company's Ordinary Shares being lifted, and dealings will recommence in the ordinary Shares on 23 November 2011. The termination of the existing trading facility and subsequent admission on 12 December 2011 is of a technical nature under the AIM Rules for Companies and accordingly it is expected that trading in the Ordinary Shares will be continuous throughout the period between the posting of this document and 12 December 2011.

There is set out at the end of this document Notice of a General Meeting of the Company to be held at the offices of Morrison & Foerster (UK) LLP, CityPoint, One Ropemaker Street, London EC2Y 9AW at 10:45 a.m. on 9 December 2011. A Form of Proxy for use at the General Meeting is enclosed. To be valid, Forms of Proxy should be completed and signed in accordance with the instructions printed thereon and returned as soon as possible and, in any event, so as to be received by the Company's registrars, Computershare Investor Services PLC at The Pavilions, Bridgwater Road, Bristol BS99 6ZY by not later than 10:45 a.m. on 7 December 2011. Pursuant to regulation 41 of the Uncertified Securities Regulations 2001, the time by which a person must be entered in the register of members in order to have the right to attend and vote at the meeting is 48 hours prior to the time of the meeting. Completion and return of a Form or Proxy will not preclude a member from attending and voting at the meeting should they so wish.

THE CONTENTS OF THIS DOCUMENT ARE NOT TO BE CONSTRUED AS LEGAL, FINANCIAL OR TAX ADVICE. INVESTORS SHOULD CONSULT HIS OR HER OWN SOLICITOR, INDEPENDENT FINANCIAL ADVISER OR TAX ADVISER FOR LEGAL, FINANCIAL OR TAX ADVICE.

**Copies of this document are available free of charge from the registered office of the Company at 7 Down Street, London W1J 8AJ and the offices of RBS Hoare Govett Limited at 250 Bishopsgate, London EC2M 4AA.**

Dated 22 November 2011



## **FORWARD LOOKING STATEMENTS**

Certain statements contained in this document constitute “forward looking statements”.

These statements relate to the IGas Group’s, or following Completion, to the Enlarged Group’s future prospects, developments and business strategies.

In some cases, these forward looking statements can be identified by the use of forward looking terminology, including the terms “believes,” “estimates,” “plans,” “prepares,” “anticipates,” “expects,” “intends,” “may,” “will,” or “should” or their negatives or other variations or comparable terminology. These statements are primarily contained in Parts 1 to 4 and 7-9 of this document.

Such forward looking statements are based on current expectations and on numerous assumptions regarding the IGas Group’s, or following Completion, the Enlarged Group’s present and future business strategies and the environment in which the IGas Group, or following Completion, the Enlarged Group will operate in the future and are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by those statements. Certain risks and uncertainties for the IGas Group, or following Completion, the Enlarged Group are specifically described in the section of this document headed “Risk Factors”. If one or more of these risk factors or uncertainties materialises or if any one or more of the assumptions prove incorrect, the IGas Group’s, or following Completion, the Enlarged Group’s actual results may vary very materially from those expected, estimated or projected. Given these risks and uncertainties, potential investors should not place any reliance on forward looking statements.

The forward looking statements speak only at the date of this document. Neither the Directors nor the Company undertake any obligation to update such statements or the Risk Factors referred to above other than as required by law or by the rules of any other relevant competent regulatory authority, whether as a result of new information, future events or otherwise.

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## ADMISSION STATISTICS

Number of Ordinary Shares in issue prior to Admission	160,323,721
Number of Ordinary Shares in issue following Admission	160,323,721
Number of Ordinary Shares in issue following the Acquisition	162,204,909

## EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Despatch of this document	22 November 2011
Lifting of suspension on trading of Ordinary Shares	23 November 2011
Latest time and date for receipt of Forms of Proxy	10:45 a.m. on 7 December 2011
IGas General Meeting	10.45 a.m. on 9 December 2011
Admission effective and dealings recommence in the Ordinary Shares on AIM	12 December 2011

Completion of the Acquisition is expected to occur within 7 days of Admission and the Company will make a further announcement when the date is fixed.

### Notes:

- (1) Each of the times and dates mentioned in the above timetable and mentioned throughout this document may be adjusted by the Company in which event details of the new dates will be notified through a Regulatory Information Service and, where appropriate, to shareholders.
- (2) References to times in this document are to London time.

## **DIRECTORS, SECRETARY AND ADVISERS**

<b>Directors</b>	Francis Gugen (Non-Executive Chairman) Andrew Austin (Chief Executive Officer) John Blaymires (Chief Operating Officer) Stephen Bowler (Chief Financial Officer) John Bryant (Senior Independent Non-Executive Director) Richard Armstrong (Non-Executive Director) John Hamilton (Non-Executive Director)
<b>Registered Office</b>	7 Down Street London W1J 8AJ
<b>Company Secretary</b>	MoFo Secretaries Limited
<b>Nominated Advisor and Broker to the Company</b>	RBS Hoare Govett Limited 250 Bishopsgate London EC2M 4AA
<b>Solicitors to the Company</b>	Morrison & Foerster (UK) LLP 7 <sup>th</sup> Floor CityPoint One Ropemaker Street London EC2Y 9AW
<b>Solicitors to Petronas</b>	SNR Denton UK LLP One Fleet Place London EC4M 7RA
<b>Auditors to the Company</b>	Ernst & Young LLP 1 More London Place London SE1 2AF
<b>Competent Person</b>	Senenergy Group Limited 39 Charing Cross Road London WC2H 0AR
<b>Registrars</b>	Computershare Investor Services PLC PO Box 1075 The Pavilions Bridgewater Road Bristol BS99 3FA
<b>PR Adviser to the Company</b>	Kreab Gavin Anderson Scandinavian House 2-6 Cannon Street London EC4M 6XJ
<b>Website address</b>	<a href="http://www.lGasplc.com">www.lGasplc.com</a>
<b>Telephone number</b>	020 7993 9899

## RISK FACTORS

An investment in the Ordinary Shares may not be suitable for all recipients of this document. Investors are therefore strongly recommended to consult an investment adviser under the FSMA, who specialises in advising on investments of this nature before making their decision to invest.

*You should carefully consider the risks and uncertainties described below, in addition to the other information in this document. The risks and uncertainties described below represent all of those known to the Directors as at the date of this document which the Directors consider to be material. However, these risks and uncertainties are not the only ones facing the IGas Group, or following Completion the Enlarged Group; additional risks and uncertainties not presently known to the Directors, or that the Directors currently consider to be immaterial, could also impair the business of the IGas Group, or following Completion the Enlarged Group. If any or a combination of these risks actually occurs, the business, financial condition and operating results of the IGas Group, or following Completion the Enlarged Group, could be adversely affected. In such case, the market price of the Ordinary Shares could decline and you may lose all or part of your investment.*

*No statement contained in the risks and uncertainties described below should be taken as qualifying the statement as to the sufficiency of working capital set out in paragraph 8 of Part 9 of this document.*

### **1. Risk factors relating to IGas, Star and the Enlarged Group**

#### ***Reserves replacement***

Future hydrocarbon production will depend on IGas' or, following Completion, the Enlarged Group's access to new reserves through exploration, negotiations with governments and other owners of known reserves, and acquisitions. Failures in exploration or in identifying and finalising transactions to access potential reserves could slow IGas' or, following Completion, the Enlarged Group's oil and gas production growth and replacement of reserves. This, in turn, could have an adverse affect on the turnover and profits of IGas or, following Completion, the Enlarged Group.

In addition, the results of appraisal of discoveries are uncertain and may involve unprofitable efforts, not only from dry wells, but also from wells that are productive but uneconomic to develop. Appraisal and development activities may be subject to delays in obtaining governmental approvals or consents, shut-ins of connected wells, insufficient storage or transportation capacity or other geological and mechanical conditions all of which may variously increase IGas' or, following Completion, the Enlarged Group's costs of operations.

Exploration and appraisal activities are capital intensive and inherently uncertain in their outcome. There is therefore a risk that IGas or, following Completion, the Enlarged Group will undertake exploration activities and incur significant costs in so doing with no assurance that such expenditure will result in the discovery of hydrocarbons, whether or not in commercially viable quantities. If exploration and/or appraisal activities prove unsuccessful over a prolonged period of time, IGas or, following Completion, the Enlarged Group may not, after 12 months from the date of this document, have sufficient working capital to continue to meet their obligations and their ability to obtain additional financing necessary to continue operations may also be adversely affected.

Producing natural gas reservoirs are typically characterised by declining production rates that vary depending upon reservoir characteristics and other factors. Additionally the Coal Bed Methane ("CBM") proportion of IGas's resources generally declines at a shallow rate after initial increases in production which result as a consequence of the dewatering process. The rate of decline from IGas' or, following completion, the Enlarged Group's existing wells may change in a manner different than what it has estimated. Thus IGas' or, following completion, the Enlarged Group's future hydrocarbon resources and production and, therefore, its cash flow and income are highly dependent on its success in efficiently developing and exploiting its current resources and economically finding or acquiring additional recoverable reserves. IGas, or following Completion, the Enlarged Group may not be able to develop, find, or acquire additional reserves to replace its current and future production at acceptable costs.

#### ***Estimation of reserves, resources and production profiles***

The estimation of oil and gas reserves, and their anticipated production profiles involves subjective judgments and determinations based on available geological, technical, contractual and economic information. They are not exact determinations. In addition, these judgments may change based on new information from production or drilling activities or changes in economic factors, as well as from

developments such as acquisitions and disposals, new discoveries and extensions of existing fields and the application of improved recovery techniques. Published reserve estimates are also subject to correction for errors in the application of published rules and guidance.

The reserves, resources and production profile data contained in this document are estimates only and should not be construed as representing exact quantities. They are based on production data, prices, costs, ownership, geophysical, geological and engineering data, and other information assembled by IGas or Star (as applicable). The estimates may prove to be incorrect and potential investors should not place reliance on the forward-looking statements contained in this document concerning IGas' or Star's reserves and resources or production levels.

If the assumptions upon which the estimates of IGas' or Star's hydrocarbon reserves, resources or production profiles have been based prove to be incorrect, IGas or, following Completion, the Enlarged Group may be unable to recover and produce the estimated levels, quantity or quality of hydrocarbons set out in this document and IGas' or, following Completion, the Enlarged Group's business, prospects, financial condition or results of operations could be materially adversely affected.

### ***Competitive business environment***

IGas operates or, following Completion, the Enlarged Group will operate in a very challenging business environment and competition for access to exploration acreage, gas markets, oil services and rigs, technology and processes, and human resources is intense. Competitors include companies with, in many cases, greater financial resources, local contacts, staff and facilities than those of IGas or, following Completion, the Enlarged Group. Competition for exploration and production licences as well as other regional investment or acquisition opportunities may increase in the future. This may lead to increased costs in the carrying on of IGas' or, following Completion, the Enlarged Group's activities and reduced available growth opportunities. Any failure by IGas or, following Completion, the Enlarged Group to compete effectively could adversely affect IGas' or, following Completion, the Enlarged Group's operating results and financial condition.

### ***Third party contractors and providers of capital equipment***

In particular, IGas has or, following Completion, the Enlarged Group will have an interest in contracts or leases, services and capital equipment from third-party providers. Such equipment and services can be scarce and may not be readily available at the times and places required. In addition, the costs of third-party services and equipment have increased significantly over recent years and may continue to rise. Scarcity of equipment and services and increased prices may, in particular, result from any significant increase in regional exploration and development activities which in turn may be the consequence of increased or continued high prices for oil or gas. The scarcity of such equipment and services, as well as their potentially high costs, could delay, restrict or lower the profitability and viability of IGas' or, following Completion, the Enlarged Group's projects and therefore have a material adverse effect on IGas' or, following Completion, the Enlarged Group's business.

### ***Production***

The delivery of IGas' production plans depends or, following Completion, the delivery of the Enlarged Group's production plans will depend on the successful continuation of existing field production operations and the development of key projects. Both of these involve risks normally incidental to such activities including blowouts, oil spills, explosions, fires, equipment damage or failure, natural disasters, geological uncertainties, unusual or unexpected rock formations, abnormal pressures, seismic events, availability of technology and engineering capacity, availability of skilled resources, maintaining project schedules and managing costs, as well as technical, fiscal, regulatory, political and other conditions. Such potential obstacles may impair IGas' or, following Completion, the Enlarged Group's continuation of existing field production and delivery of key projects and, in turn, IGas' or, following Completion, the Enlarged Group's operational performance and financial position (including the financial impact from failure to fulfil contractual commitments related to project delivery).

IGas or, following Completion, the Enlarged Group may face interruptions or delays in the availability of infrastructure, including pipelines and storage tanks, on which exploration and production activities are dependent. The production performance of the reservoirs and wells may also be different to that forecast due to normal geological or mechanical uncertainties. Such interruptions, delays or performance differences could result in disruptions or changes to IGas' or, following Completion, the Enlarged Group's existing production and projects, lower production and increased costs, and may have an adverse effect on IGas' or, following Completion, the Enlarged Group's profitability.



### ***Exploration and development risk***

It is important for investors to appreciate that the development of CBM resources is a highly speculative activity and there are a number of risks which may impact on the overall investment.

There is no certainty that the expenditures made by IGas or, following Completion, by the Enlarged Group towards the search and evaluation of CBM deposits will result in development of commercial quantities. The future profitability of IGas or, following Completion, the Enlarged Group and the value of its Ordinary Shares are directly related to the success of the project development and exploration activities of the Company, and following Completion, the Enlarged Group.

CBM exploration is a high risk activity and consequently, no assurances can be given in relation to the success of any development of CBM.

In the event that the exploration and development projects are unsuccessful, the value of IGas' Shares or, following Completion, the value of the Enlarged Group's Shares and any associated exploration licences may be diminished.

### ***Explorations and Development costs***

Exploration and development expenditure estimates are based on certain assumptions with respect to the method and timing of exploration and development. By their nature, these estimates and assumptions are subject to significant uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Additionally, CBM is a tight gas which sometimes requires unconventional methods of exploration and development which can be more expensive than conventional methods. Further, CBM by its nature often is also produced with a significant amount of water and hence the environmental implications of carrying out both the drilling and dewatering operations can be costly and time consuming. Accordingly, no assurance can be given that the cost estimates and the underlying assumptions will be realised in practice, which may materially and adversely affect IGas', and following Completion, the Enlarged Group's viability. Hydraulic fracturing (commonly known as "fracking") can be used to increase or restore the rate at which water and hydrocarbon resources are released from subterranean natural reservoirs. Hydraulic fracturing is achieved by injecting a fluid into the rock structure, typically a slurry of water proppants and chemical additives. The process of hydraulic fracturing is currently under review by a number of governmental and non-governmental environmental agencies around the world. Whilst IGas does not currently use fracking as an exploration or development tool the results of these environmental assessments may ultimately curtail its use as an exploration and development tool to enhance recoveries which in turn may impact IGas' or, following Completion, the Enlarged Group's ability to maximise the recovery of its resources in the future.

### ***Human resources***

IGas' key human resources are or, following Completion, the Enlarged Group's key human resources will be, essential for the successful delivery of projects and continuing operations. Loss of personnel to competitors or inability to attract quality human resources could affect IGas' or, following Completion, the Enlarged Group's operational performance and growth strategy.

### ***Hydrocarbon prices***

Historically, hydrocarbon prices have been subject to large fluctuations in response to a variety of factors that are beyond IGas' or, following Completion, the Enlarged Group's control. Factors that influence these fluctuations include operational issues, natural disasters, weather, political instability or conflicts, economic conditions or actions by major oil-exporting countries. Price fluctuations can affect IGas' or, following Completion, the Enlarged Group's business assumptions, investment decisions and financial position. In particular, lower hydrocarbon prices may reduce the economic viability of IGas' projects or, following Completion, the Enlarged Group's projects, result in a reduction in revenues or net income, impair IGas' or, following Completion, the Enlarged Group's ability to make planned expenditures and could materially adversely affect IGas' or, following Completion, the Enlarged Group's business, prospects, financial condition and results of operations.

### ***Uninsured hazards***

IGas or, following Completion, the Enlarged Group may be subject to substantial liability claims due to the inherently hazardous nature of their business or for acts and omissions of subcontractors, operators or joint venture partners. Any indemnities IGas or, following Completion, the Enlarged Group may receive from such parties may be difficult to enforce if such sub-contractors, operators or joint

venture partners lack adequate resources. There can be no assurance that the proceeds of insurance applicable to covered risks will be adequate to cover expenses relating to losses or liabilities. Accordingly, IGas or, following Completion, the Enlarged Group may suffer material losses from uninsurable or uninsured risks or insufficient insurance coverage.

### ***Counterparties***

IGas has entered into or, following Completion, the Enlarged Group will be subject to agreements with a number of contractual counterparties in relation to the sale and supply of hydrocarbon production volumes. Therefore, IGas is, or, following Completion, the Enlarged Group will be, subject to the risk of delayed payment for delivered production volumes or counterparty default. Such delays or defaults could materially adversely affect IGas' or, following Completion, the Enlarged Group's business, results of operations and cash flows.

### ***Licence withdrawal and renewal***

It is possible that in the future IGas or, following Completion, the Enlarged Group may be unable or unwilling to comply with the terms or requirements of a licence in circumstances that entitle the relevant authority to suspend or withdraw the terms of such licence. Moreover, some of the exploration and production licences which are held by IGas or, following Completion, will be held by the Enlarged Group expire or may expire before the end of what IGas estimates or, following Completion, the Enlarged Group may estimate to be the productive life of the licensed fields. There can be no assurance that extensions will be granted in relation to such licences. Any failure to receive such extensions or any premature termination, suspension or withdrawal of licences may have a material adverse effect on IGas' or, following Completion, the Enlarged Group's reserves, business, results of operations and prospects.

### ***Credit market conditions and credit ratings***

Recent events in the credit markets have significantly restricted the supply of credit, as financial institutions have applied more stringent lending criteria or exited the market entirely. If current market conditions continue, it may be more costly and more difficult for IGas or, following Completion, the Enlarged Group to refinance its debt as it falls due in the longer-term.

In addition, following recent events it has become and may become more costly to raise new funds to take advantage of opportunities.

### ***Macroeconomic risks***

One of the principal uncertainties for IGas or, following Completion, the Enlarged Group is the extent to which the global economic slowdown currently being experienced may impact IGas' or, following Completion, the Enlarged Group's major operations in the form of reduced prices or a reduced demand for IGas', or the Enlarged Group's product, and the timing of that impact. The links between economic activities in different markets and sectors are complex and depend not only on direct drivers such as the balance of trade and investment between countries, but also on domestic monetary, fiscal and other policy responses to address macroeconomic conditions.

### ***Environmental and planning***

IGas and, following Completion, the Enlarged Group is exposed to environmental risks given the nature of its operations and an environmental situation could arise in the future which could affect the Enlarged Group's profitability.

Environmental and safety legislation may change in a manner that may require stricter or additional standards than those now in effect, a heightened degree of responsibility for companies and their directors and employees and more stringent enforcement of existing laws and regulations.

Whilst certain planning authorities currently appear supportive of the type of projects being pursued by IGas and, following Completion, the Enlarged Group when considering the grant of planning permission for such projects there can be no guarantee that as local structure plans are revised that this policy is not changed, modified or reversed and there can be no assurance that planning might ever be obtained in those areas where authorities are currently less supportive. The planning permission process involves local consultation and projects can be opposed, either individually or on a general basis, at the planning level, by national or local pressure groups, as has been the case in certain areas of the countryside in respect of projects in the past; opposition to projects could lead to

IGas, or following Completion, the Enlarged Group being involved in appeals or public enquiries where costs could be potentially large and the ultimate outcome uncertain including failure to obtain the permissions necessary to pursue development and/or production or, if granted, to enable development and/or production to be pursued economically. Safety concerns may also result in delays in obtaining planning permission or in conditions being imposed and costs being increased potentially to a level where operations are rendered uneconomic.

The expense of meeting environmental regulations could cause a significantly negative effect on profitability of IGas, or following Completion, the Enlarged Group as could failure to obtain certain necessary environmental permits.

The current and anticipated future operations of the IGas or, following Completion, the Enlarged Group, including further exploration, appraisal, development, production and ultimately decommissioning activities require permits from various national and local governmental authorities. Such operations are subject to a substantial body of laws and regulations governing land use, the protection of the environment, production, taxes, labour standards, occupational health, waste disposal, toxic substances, mine safety and other matters.

The permits that IGas or, following Completion, the Enlarged Group may require for construction of development and/or production facilities and conduct of development and/or production operations must be obtainable on reasonable terms to IGas or, following Completion, the Enlarged Group. Unfavourable amendments to current laws, regulations and permits governing operations and activities of development and/or production companies, or more stringent implementation thereof, could have a materially adverse impact on IGas or, following Completion, the Enlarged Group and cause increases in capital expenditures which could result in a cessation of operations by IGas or, following Completion, the Enlarged Group.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions. Parties engaged in hydrocarbon operations may be required to compensate those suffering loss or damage by reason of their activities and may have civil or criminal fines or penalties imposed for violation of applicable laws or regulations.

The government extensively regulates IGas' or, following Completion, the Enlarged Group's operations, which imposes significant costs on IGas or, following Completion, the Enlarged Group, and future regulations could increase those costs or limit its ability to produce hydrocarbons.

IGas or, following Completion, the Enlarged Group is subject to extensive regulations with respect to matters such as but not only:

- a. employee health and safety;
- b. permitting and licensing requirements;
- c. air quality standards;
- d. water quality standards;
- e. plant and wildlife protection;
- f. reclamation/restoration of properties after production completed;
- g. discharge of materials into the environment, including, inter alia, water disposal and gas flaring;
- h. surface subsidence from underground production; and
- i. the effects of development and/or production operations on groundwater quality and availability.

Numerous permits and approvals are required for hydrocarbon operations. IGas or, following Completion, the Enlarged Group is required to prepare and present to national and local authorities data pertaining to the effect or impact that any proposed exploration and appraisal for or production of hydrocarbons may have upon the environment. The costs, liabilities and requirements associated with these regulations may be costly and time-consuming and may delay commencement or continuation of exploration, appraisal or production operations. The possibility exists that new legislation, regulations and orders may be adopted that may materially adversely affect IGas' or, following Completion, the Enlarged Group's operations and its cost structure. New legislation or administrative regulations (or judicial interpretations of existing laws and regulations), including proposals related to the protection of

the environment, that would further regulate and tax the industry may also require IGas or, following Completion, the Enlarged Group or its customers to change operations significantly or incur increased costs.

### ***Capital intensive nature of the projects and access to future funding***

All of the projects which IGas or, following Completion, the Enlarged Group intends to develop are highly capital intensive. Whilst IGas or, following Completion, the Enlarged Group will have obtained funding for its short term development and roll-out programme on Admission, the funding available to it may not allow it to complete some of the projects or to commence others. There can be no guarantee that IGas or, following Completion, the Enlarged Group will be able to raise additional funding if required, which may have an adverse effect on projects under development. In addition, the costs of any of the projects may overrun those estimated by the Directors or the projects may be delayed. Any of these events may prevent IGas, or following Completion, the Enlarged Group from progressing certain projects at all.

### ***Litigation***

IGas, or following Completion, the Enlarged Group faces the risk of litigation in connection with the business. In general, liability for litigation is difficult to assess or quantify; recovery may be sought for very large and/or indeterminate amounts and the existence and magnitude of liability may remain unknown for substantial periods of time. Although IGas or, following Completion, the Enlarged Group is not party to any material litigation at present, substantial legal liability in the future could have a material adverse effect on its business, results of operations and/or financial condition.

### ***Director Indemnification***

The Articles contain provisions indemnifying its officers and directors against all costs, charges and expenses incurred by them, which could interfere with shareholders successfully suing the Company.

The Articles contain provisions that state, subject to applicable law, the Company shall indemnify every director or officer of the Company, subject to the limitations of the Companies Act, against all losses or liabilities that the Company's directors or officers may sustain or incur in the execution of their duties. The Articles further state that no director or officer shall be liable for any loss, damage or misfortune that may happen to, or be incurred by the Company in the execution of their duties if they acted honestly and in good faith with a view to the best interests of the Company. Such limitations on liability may reduce the likelihood of litigation against the Company's officers and directors and may discourage or deter its shareholders from suing the Company's officers and directors based upon breaches of their duties to the Company, though such an action, if successful, might otherwise benefit the Company and its shareholders.

## **2. RISK FACTORS RELATING TO COMPLETION**

### ***The Enlarged Group's success will be dependent upon its ability to integrate Star***

Risks commonly associated with acquisitions of companies or businesses include the difficulty of integrating the operations and personnel of the acquired business, problems with minority shareholders in acquired companies, the potential disruption of IGas' or, following Completion, the Enlarged Group's own business, the possibility that indemnification agreements with the sellers may be unenforceable or insufficient to cover potential liabilities and difficulties arising out of integration. These risks may also apply specifically to Completion itself.

Following Completion, the Enlarged Group may encounter numerous integration challenges in connection with Completion, including challenges which are not currently foreseeable. In addition, the Enlarged Group's management and resources may be diverted away from its core business activities due to personnel being required to assist in the integration process. This integration process may take longer than expected, or difficulties relating to the integration, of which the Board is not yet aware, may arise. This could adversely affect the implementation of the Enlarged Group's plans, and the Enlarged Group may not be successful in addressing risks or problems encountered in connection with the integration and failure to do so may adversely affect its business or financial condition. In addition, there is a risk that synergy benefits may fail to materialise, or they may be materially lower than have been estimated which may have a material adverse effect on the financial condition of the Enlarged Group.

***Risk factors relating to the terms of the Credit Agreement and the Debenture***

The covenants contained in the Credit Agreement and the Debenture include financial and other covenants including restrictions on the ability of IGas and, following Completion, the Enlarged Group to incur additional financial indebtedness, grant security, make acquisitions or disposals, enter into mergers and repurchase shares as well as covenants related to Completion. These could restrict IGas' or, following Completion, the Enlarged Group's activities or flexibility or ability to undertake strategic or significant transactions and may operate as restrictions on operational activity.

As part of the Acquisition, IGas or, following Completion, the Enlarged Group will be taking on a significant amount of debt to finance Completion. IGas or, following Completion, the Enlarged Group will be required to pay back this debt over a number of years, principally from the cash flows from the Company. Whilst the Company has carefully considered its working capital position for the purposes of Admission, and has entered into certain hedging arrangements to mitigate against risks associated with the price it may achieve for its hydrocarbon production, in the longer term (being more than 12 months after Admission) intervening events and/or unforeseen production issues could mean that if IGas or, following Completion, the Enlarged Group is unable to pay down the debt on the dates required, the bank may call in their loans, which could materially affect IGas' or, following Completion, the Enlarged Group's ability to continue as a going concern.

***Shareholders may suffer a dilution in their interest upon any conversions by the holders of the Warrants***

The Company has issued Warrants to Macquarie Bank Limited as described in greater detail in paragraph 7.1.1 of Part 9. Macquarie Bank Limited will be eligible to convert its Warrants into Ordinary Shares of the Company in accordance with the terms of the Warrant Instrument at an exercise price of 55.8p per Ordinary Share. Any such conversions will have the effect of diluting the interest of the existing Shareholders.

***Hedging risk***

Pursuant to the Hedging Agreements, the Company and various of the IGas Subsidiaries have entered into a series of oil and foreign exchange derivative transactions with Macquarie Bank Limited in order to hedge the exposure under the Oil Supply Agreements to fluctuations in the price of Brent Crude Oil, and the exposure to foreign exchange rate fluctuations.

IGas uses or, following Completion, the Enlarged Group will use such hedging instruments to manage the impact of currency and commodity price fluctuations. To the extent that any of its exposure remains unhedged, the value of its investments may be affected by adverse movements in currency rates, commodity prices or, interest rates, which may have a material adverse effect on IGas' or, following Completion, the Enlarged Group's business, success of its activities and operations, and overall financial position.

In the event of any counterparty to such a hedging instrument failing to satisfy any of its payment or delivery obligations under such instrument, IGas' ability or, following Completion, the Enlarged Group's ability to manage commodity price risk may be adversely affected and this could in turn materially adversely affect its business, financial condition and results of operations.

***Gas Offtake Agreement***

On 16 September 2011, IGas signed an agreement with Petronas Energy Trading Limited pursuant to which IGas or, following Completion, the Enlarged Group will be obliged to sell its first 150 Bscf of commercial gas production to Petronas at a pricing matrix based on the bid price under the National Balancing Point heading on the European Spot Gas Markets. There is no certainty that gas production will reach such quantities as CBM exploration is a high risk activity and, consequently, no assurances can be given in relation to the success of such levels of gas production. If less than 100,000 therms per day are produced by 31 March 2015 the agreement is entitled to be terminated by Petronas and hence the future profitability of IGas or, following Completion, the Enlarged Group may be consequently affected.

***3. Risks relating to Admission***

The value of an investment in IGas or, following Completion, the Enlarged Group and the income derived from it, if any, may go down as well as up, and an investor may not get back the amount invested.



### **AIM**

Application will be made for the Company's Issued Share Capital to be re-admitted to trading on AIM. AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk tends to be attached than to larger more established companies. In particular, shares in AIM companies may be less liquid than those traded in Official List companies. AIM securities are not admitted to the Official List of the FSA. Prospective investors should be aware of these risks and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser.

### ***The Company may not be able pay dividends***

The Board currently believes it is in the best interests of the Company and its shareholders to reinvest profits in order to drive growth.

## **4. Risk factors relating to the Ordinary Shares**

### ***IGas' share price will fluctuate***

The market price of the Ordinary Shares could be subject to significant fluctuations due to a change in sentiment in the market regarding the Ordinary Shares. Such risks may occur in response to various facts and events, including any variations in the IGas' or, following Completion, the Enlarged Group's operating results, business developments of IGas or, following Completion, the Enlarged Group and/or its competitors. Stock markets have, from time to time, experienced significant price and volume fluctuations that have affected the market prices for securities and which may be unrelated to the IGas' or, following Completion, the Enlarged Group's operating performance or prospects. Furthermore, IGas' or, following Completion, the Enlarged Group's operating results and prospects from time to time may be below the expectations of market analysts and investors. Any of these events could result in a decline in the market price of the Ordinary Shares and investors may, therefore, not recover their original investment. Furthermore, it is possible that IGas or, following Completion, the Enlarged Group may decide to offer additional shares in the future. Any additional offering could also have an adverse effect on the market price of the Ordinary Shares.

## PART 1

### LETTER FROM THE CHAIRMAN

#### IGAS ENERGY PLC

*(Incorporated in England and Wales with Registered No. 04981279)*

*Directors:*

Francis Gugen (Non-Executive Chairman)  
Andrew Austin (Chief Executive Officer)  
John Blaymires (Chief Operating Officer)  
Stephen Bowler (Chief Financial Officer)  
John Bryant (Senior Independent Non-Executive Director)  
Richard Armstrong (Non-Executive Director)  
John Hamilton (Non-Executive Director)

*Registered Office:*

7 Down Street  
London  
W1J 8AJ

22 November 2011

*To the holders of Ordinary Shares and for information only to holders of options*

Dear Shareholder,

**Proposed acquisition of Star Energy Group Limited and its Subsidiaries  
Application for re-Admission to trading on AIM  
Notice of General Meeting**

#### **1. Introduction**

As announced by the Company on 19 September 2011, the Company has conditionally agreed to acquire Star Energy Group Limited from Petronas International Corporation Limited. The Acquisition will comprise the UK onshore production assets of the Star Group but exclude certain non-UK assets and the gas storage business currently conducted by Star. The consideration for the Acquisition is £110 million, which is to be satisfied by way of new debt facilities with Macquarie Bank, cash generated by Star prior to closing and IGas' existing cash resources. In addition the Company has also entered into a gas offtake agreement with Petronas Energy Trading Limited to supply 150 Bscf of gas at market derived rates.

Your Board believes that the Acquisition is an exciting and transformational opportunity for the Company. Not only would the proposed Acquisition add 2P reserves of 11.13 MMboe and increase contingent resources 2C to 316 MMboe, but IGas will be acquiring an experienced and substantial management team involved in current production, with capacity to further develop the assets of the Enlarged Group. Your Board also believes that the Acquisition would make the Company one of the largest onshore UK oil and gas producers with a balanced portfolio of producing and development assets. Your Board believes that the potential exists for significant upside to the existing oil production from the Star assets which, together with the opportunity to grow the production profile as combined oil and gas resources are developed, has the potential to deliver considerable fiscal synergies for the Enlarged Group.

Your Board has obtained irrevocable undertakings from shareholders and directors holding, in aggregate, 89,627,390 shares, representing 55.90% of the Issued Share Capital to vote in favour of the Resolutions to be proposed at the General Meeting to implement the Acquisition. These undertakings include undertakings from the Directors who have irrevocably undertaken to vote in favour of the Resolutions to implement the Acquisition with respect to their holdings totalling 38,483,847 shares or 24.00% of the Issued Share Capital.

IGas is an AIM listed oil and gas exploration and production company that owns exploration and development licences in gas assets onshore UK, including Coal Bed Methane ("CBM") and shale gas. As IGas is developing its existing gas portfolio, it is seizing an opportunity to acquire a mature onshore UK oil and gas portfolio of producing assets through the transaction with Petronas. Pursuant to the Acquisition, IGas will acquire the entire issued share capital of Star Energy Group Limited and its subsidiaries: Star Energy Limited, Star Energy Oil and Gas Limited, Star Energy Oil UK Limited, Star Energy (East Midlands) Limited and Star Energy Weald Basin Limited and will take ownership of all

Star's producing oil and gas assets, with the exception of Humbly Grove and the Herriard fields, which will be carved out from the current business, together with all the subsidiary entities that concentrate on gas storage which will also be carved out from the Star Group and will be retained by Petronas.

Due to the size of the Acquisition in relation to the Company, the Acquisition constitutes a reverse takeover under the AIM Rules for Companies and is therefore subject to the approval of the Shareholders of the Company. Approval for the Acquisition is being sought at the General Meeting which has been convened for 10.45 a.m. on 9 December 2011.

If the Resolutions are duly passed at the General Meeting, the Issued Share Capital will be re-admitted to trading on AIM on 12 December 2011.

The purpose of this document is to provide you with background to and information regarding the Acquisition, the Star Group, and following Completion, the Enlarged Group, and to seek your approval of the Acquisition at the General Meeting. Notice of the General Meeting is set out in Part 12 of this document.

## **2. Background information on IGas**

### **2.1 Introduction**

On 9 March 2011 IGas announced completion of the acquisition of Nexen Exploration UK Limited for a consideration of 39,714,290 Ordinary Shares. The effect of this transaction was that all 11 UK Petroleum Exploration and Development Licences ("PEDL") and the three blocks within a seaward petroleum production licence became wholly owned and operated by IGas (having previously been subject to various joint interest relationships with Nexen Petroleum UK Limited).

The result of this acquisition was that IGas' Contingent Resource 2C (P50) increased by 115 per cent. to 1,736 Bscf or 260 MMboe (DeGolyer & MacNaughton 31 December 2008 assessment). In March 2011, IGas placed a total of 27,500,000 Ordinary Shares to raise £20,625,000 (before expenses). The Board considered the consolidation of its licence interests and associated fundraising to be a major turning point in the history of the Company and the first step in creating a vehicle to further expand and accelerate its growth as an operational onshore hydrocarbon exploration and production company.

The Board accordingly believes the current Acquisition is a further significant step towards delivering upon that strategy. The Acquisition will provide IGas with a substantial portfolio of producing acreage, comprising 25 onshore fields in the Weald Basin in the South of England and in the East Midlands. The Company is developing a combined optimised work programme for the Enlarged Group based on its findings from DG-3 and DG-4, maximising synergies using Star's execution capabilities and its tax profile to obtain maximum results from capital expenditure opportunities in the Star producing companies.

### **2.2 Operational Update**

IGas considers that significant progress has been made in recent months. We announced on 19 September 2011 that the Company planned to drill between four and six wells by Q2 2012 and to date three wells have been completed or are underway; DG-3 drilled 1500 ft of coal at Doe Green. Also at Doe Green, DG-4 spudded on 10 October 2011 and Ince Marshes spudded on 4 November 2011.

IGas also planned to be operational at 5 sites by Q2 of 2012. The Company is currently operational at 4 sites, being Doe Green (DG-3 and DG-4); Ince Marshes; Ellesmere Port, where site construction is now complete; and Barton (now renamed Irlam), where site construction is underway.

Also in accordance with the plans announced by the Company on 19 September 2011, at Ince Marshes, which spudded on 4 November 2011, the Company is drilling with a Schramm R1 TXD rig. The well will be logged and cored, to be suspended as a potential producer. At Ellesmere Port the Company has completed site construction. Pre-drill approvals are in place and a drilling programme has been prepared. The Company will await an analysis of the Ince Marshes results prior to commencing drilling at Ellesmere Port.

At Doe Green DG-3 the Company has completed multilaterals in the London Delph seam (1500ft) and at DG-4 is drilling multilaterals in the Plodder seam (with a target of 3,000 ft). An upgrade of facilities is also underway at Doe Green of power generation and pumping equipment.

The Company's current planned work program will fulfil all of its remaining 13<sup>th</sup> Licencing Round Obligations, specifically the planned drilling at Irlam and Ellesmere Port will discharge the final obligations. We have also increased headcount by 8 in accordance with our announced plans.



## 2.3 Summary of IGas' Resources

The IGas Coal Bed Methane ("CBM") and shale gas assets are in ten onshore and one offshore licence located in Cheshire, Flintshire and Staffordshire. Total area under license is 1,455 km<sup>2</sup>. IGas has a 100% working interest in all licences.

The assets were reviewed for CBM potential by DeGolyer and MacNaughton in December 2008, who established at the time, and based on the data then available, statistically aggregated Contingent Resources of 1.7 Trillion Cubic Feet (2C). The CBM assets were also reviewed, from the perspective of their GIIP, by Equipoise Solutions Ltd, who also assembled and reviewed the available shale gas data.

Existing reports are based mostly on the voluminous coal core data available from the mining industry alongside modern petroleum core and log data from several wells in the period from 2008 to 2010. There is a range of available information on the licences, but in general the coals' measures are adequately to well defined.

Senergy (in their report dated 15 November 2011) has analysed the data provided by IGas to estimate resources on a field level basis. The information was reviewed using experiences from successful CBM development projects in North America and Australia. Senergy did not carry out independent interpretation of each seam thickness.

Senergy used existing GIIP estimates combined with development and recovery efficiencies to estimate Contingent Resources on a field level basis. Senergy's estimate for total Contingent Resources net to IGas is depicted in the table below.

Contingent Resources Net to IGas			
Stochastic Aggregate of all UK Fields	1C	2C	3C
Total Gas (Bscf)	1,400	1,811	2,389
Total Hydrocarbons (MMboe)	241	312	412

Source: Competent Persons Report, Senergy, 15 November 2011

IGas' CBM developments should benefit from the modern petroleum core and log data, and the production data available, as well as from knowledge gained from drilling and operating the Doe Green wells over the last few years. The optimal development zones and drilling and completion techniques for IGas' CBM assets will still take time to fully develop. Enhanced project definition and production projections based on the Doe Green results could give sufficient confidence for a limited reclassification of certain resources as Possible or Probable Reserves.

### 2.3.1 Map of IGas' Licence Acreage

Please refer to Figure 1.3 "IGas UK Gas Assets – Location Map" of the CPR set out in Part IV of this document.

## 3. Background information on Star

### 3.1 Introduction

Star was founded in 1999 to pursue underground gas storage projects. Star was the subject of an initial public offering on AIM in May 2004, before being the subject of a takeover offer from Petronas in early 2008.

Star currently carries on business producing oil and gas from 25 onshore fields in the Weald Basin and East Midlands areas.

IGas has agreed with Petronas that it will acquire Star and those of the Star Subsidiaries which carry on exploration, development and production activity. The gas storage businesses will be retained by Petronas, together with the Humbley Grove and Herriard Fields.

### 3.2 Summary of Star's assets

#### Operations Overview

Star has interests in 25 UK onshore licences in the East Midlands and the Weald Basin and is the appointed operator in 23 of the 25 licence areas. In total, Star occupies or owns 105 sites with an inventory of 247 wells (of which 85 are currently still in operation). The operating companies in East Midlands and the Weald Basin are responsible for the day-to-day operations of the fields and are supported by central services and development teams.

## **East Midlands**

The East Midlands has two primary production area centres: Welton and Gainsborough / Beckingham. The Welton area production wells are beam pump type. The Welton area fields comprise:

- Welton A/B/C;
- Nettleham;
- Scampton (N&S);
- Stainton; and
- Cold Hanworth.

The Welton Gathering Centre ("WGC") is the hub reception and process facility. The produced oil, gas and water are separated at the WGC. Welton A/B/C and Nettleham flow to WGC via pipelines. All other fields have oil/water storage and tanker pick-up.

At WGC produced oil is exported to Conoco Immingham via road tanker, gas is used for power generation and produced water is pumped for reinjection at Welton A. WGC is manned 24 hours per day. All other Welton area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

The WGC has been designed for much higher throughputs than current use (6,000 bopd versus current 950 bopd) and previously included many more process unit operations including gas sweetening and amine units, fuel gas compression and GT power generation. The WGC site has a large plot area. There are many site process unit operations that are now not in service or isolated, though not disinvested, including a former rail export siding.

The Gainsborough / Beckingham facility manages its own production as well as the production from seven other oilfields:

- Corringham;
- Glentworth;
- East Glentworth;
- Rempstone;
- Long Clawson;
- South Leverton; and
- Bothamsall.

Gainsborough / Beckingham wells flow to the Gainsborough-5 gathering and processing hub via pipelines. All other fields have oil and water storage and tanker pick-up. The Gainsborough-5 processing facility separates oil, gas and water. Oil is exported to Conoco Immingham via road tanker, gas is piped to Gainsborough-1 for power generation and produced water is pumped for reinjection. All Gainsborough / Beckingham area oil production wells are beam pump type.

Gainsborough-5 is manned 24 hours per day, Gainsborough-1 is manned during daytime hours and has 24 hour security and Long Clawson A is manned during daytime. All other Gainsborough area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

## **Weald Basin**

The Weald Basin sites cover the following areas: Stockbridge, Palmers Wood, Bletchingly, Storrington and Horndean, which are manned sites with daytime operators. The two sites at Palmers Wood are covered by one man as are the three sites at Horndean. The main Stockbridge site, Larkwhistle Farm is manned during the day and operators from this site also service the Hill Farm, Folly Farm, Goodworth and Avington sites. The Holybourne terminal is continually manned.

The Albury gas field is presently suspended following drilling of a new well for potential gas storage use. Star Energy Weald Basin Limited currently plans to reinstall equipment for gas production and power generation for export at the Albury gas field.

The Humbly Grove and Herriard sites have not been assessed as these licence areas are not being acquired as part of the Acquisition.

Oil is exported by tanker from all sites except the Palmers Wood Coney Hill site which exports to the Palmers Wood Rooks Nest site by pipeline. There are plans to abandon this pipeline. There is also a pipeline into the Holybourne terminal from Humbly Grove. Produced water is either reinjected on site or trucked to another site for reinjection. Power is imported or generated by an on-site diesel generator.

Oil can be either exported by road tanker to the BP operated Hamble terminal on the Solent or by road tanker to the Star operated Holybourne storage facility for onward transport by rail (5,000 stb loads) to the Esso Fawley refinery, which is generally once per week. Generally oil from Stockbridge is exported to Hamble and oil from the other fields is exported to Holybourne / Fawley. However, there is flexibility of operation and any production can be exported via either route.

The production department has two work over rigs, four hot water flush rigs, one hot oil flush rig, and one flushby unit for pulling beam pump well rods. Demand for the rigs is high.

### 3.2.1 *Map of Star's Licence Acreage*

Please refer to Figure 1.1 "Star Assets – Location Map East Midlands" of the CPR, and Figure 1.2 "Star Assets – Location Map Weald Basin" of the CPR.

### 3.2.2 *Summary of Star's Reserves and Resources*

A summary of the Star Asset Reserves and Contingent Resources is provided in the two tables below. A breakdown of Reserves and Contingent Resources by field is provided in Table 1.3 on page vi of the CPR.

Reserves and Resources Net to IGas <sup>1</sup>				
Asset	Proved (1P)	Proved plus Probable (2P)	Proved plus Probable plus Possible (3P)	2C <sup>2</sup> Contingent Resources
<b>Volume Oil (MMstb)</b>				
Star Assets	5.68	9.63	14.85	4.46
<b>Total Oil (MMstb)</b>	<b>5.68</b>	<b>9.63</b>	<b>14.85</b>	<b>4.46</b>
<b>Volume Gas (Bscf)</b>				
Gainsborough/ Beckingham	4.20	6.50	7.70	N/A
Albury	0.70	2.20	2.70	N/A
<b>Total Gas (Bscf)</b>	<b>4.90</b>	<b>8.70</b>	<b>10.40</b>	<b>N/A</b>
<b>Total Hydrocarbons (MMboe)</b>	<b>6.52</b>	<b>11.13</b>	<b>16.65</b>	<b>4.46</b>

<sup>1</sup> The proportion of gross reserves, resources or value for the attributable interests of IGas. These volumes exclude Humbly Grove and Herriard.

<sup>2</sup> 2C: in a resource size distribution this is the Base case or (50% probability) or Mean volume. This is defined for each asset in the CPR.

Source: Competent Persons Report, Senergy, 15 November 2011

The produced gas is currently mostly used to generate power for internal consumption, with the option to sell into the UK grid. Due to power generation capacity limitations only a limited amount of gas has been produced in the recent past. Whilst this has affected the production profiles for the remaining resources, Senergy has not discounted these resources and classified them as Reserves, because Senergy believes that these resources can easily find a way into the UK market.

## 4. Principal terms of the Acquisition

Pursuant to the terms of the Acquisition Agreement, the Company will acquire the entire issued share capital of Star and outstanding intercompany debt owed by Star to its parent company for a total cash consideration of £110 million. Pursuant to the Acquisition, the Company will acquire the entire issued share capital of Star Energy Group Limited and its subsidiaries: Star Energy Limited, Star Energy Oil and Gas Limited, Star Energy Oil UK Limited, Star Energy (East Midlands) Limited and Star Energy Weald Basin Limited and will take ownership of all Star's producing oil and gas assets, with the

exception of Humbly Grove and Herriard fields, which will be carved out from the current business, together with all the subsidiary entities that concentrate on gas storage which will also be carved out from the Star Group.

The Company will also receive the benefit of a tax deed entered into by Petronas, giving the Company protection against any undisclosed or changes in the provisional tax liabilities of the Star entities being acquired.

Petronas and the Company will also enter into a gas offtake agreement. Pursuant to this agreement the Company will be obligated to sell its first 150 Bscf of gas production to Petronas at a pricing matrix based on the bid price under the National Balancing Point heading on the European Spot Gas Markets.

Further details of the Acquisition Agreement, the Tax Deed and the Gas Offtake Agreement are set out in paragraphs 7.1.7, 7.1.8 and 7.1.12 of Part 9 of this document. The Acquisition is conditional upon completion of the corporate reorganisation described above to remove the gas storage business from Star Energy Group Limited, which involves the obtaining of certain regulatory consents. The Acquisition is also conditional upon Admission. It is expected that the Acquisition will complete prior to 16 December 2011 and the Company will make a further announcement once the completion date has been confirmed. The Company is to pay an origination fee to Hydrocarbon Strategic Services SA as set out in further detail in paragraph 7.1.13 of Part 9 of this document, in relation to the Acquisition.

The Acquisition will be financed by way of debt facilities from Macquarie Bank together with cash balances held at Star and IGas' own cash resources. The Company will borrow a total of up to \$135 million (approximately £85 million) to enable it to complete the Acquisition. The Credit Agreement comprises three separate facilities, a 5 year senior secured term loan of \$90 million at a rate of 5.5% over LIBOR and a 2% commitment fee; and a 5 year senior secured term loan of \$45 million at 12% over LIBOR and a 3.5% commitment fee. The Credit Agreement also provides for an uncommitted working capital facility of \$15 million and is available at the future discretion of Macquarie. The debt facilities will be secured over the assets and undertakings of the Enlarged Group. At Completion the Company will issue Macquarie with 21,286,646 Warrants to acquire Ordinary Shares at a price of 55.8p per Ordinary Share as further described in paragraph 7.1.1 of Part 9. IGas' held cash balances of £22.5 m as at 31 October 2011. The Acquisition is designed to have an economic effect as at 31 March 2011 and accordingly cash balances generated within Star after this date accrue for the benefit of IGas, together with certain other cash adjustments relating to tax and capital expenditure. The \$135 million element of the facility with Macquarie will be used to finance the majority of the Acquisition price, with the \$15 million working capital facility potentially being available to allow the funding of capital expenditure on both the IGas and Star asset portfolios.

The Company has also entered into a series of oil swap transactions with Macquarie Bank with respect to approximately 2.4mmbbl over six years. These oil swap transactions will be novated and assigned to the Star producing companies on completion of the Acquisition. These oil swap transactions are designed to protect an element of the Enlarged Group's cash flow for debt service.

Under two oil supply agreements between (i) Star Weald Basin Limited (the shares of which are to be acquired by the Company under the Acquisition Agreement) and Esso Petroleum Company Limited ("**Esso**") and (ii) Star Oil & Gas Limited (the shares of which are to be acquired by the Company under the Acquisition Agreement) and Conoco Phillips Limited ("**Conoco**"), these Star Subsidiaries will supply quantities of crude oil as nominated by IGas to Esso and Conoco, respectively, in return for payment of a floating price for their production. Following Completion, the Company intends to novate its rights and obligations under the derivative transactions to the relevant Star Subsidiaries in order to hedge their exposure to fluctuations in the price of Brent Crude Oil, and their exposure to foreign exchange rate fluctuations.

To date the Company has been entirely equity financed which is consistent with market sentiment and expectation for companies primarily engaged in exploration and appraisal activities. However, following completion of the Acquisition, it is expected that the Enlarged Group will have significant production volumes generating cash flows which make debt financing appropriate.

## **5. Summary of financial information for the Company**

Please see the information set out in Part 5 of this Admission document.

## **6. Summary financial information for Star Energy Group Limited**

Please see the information contained at Part 6 of this Admission document.

## **7. Current trading and prospects of the Enlarged Group**

The Enlarged Group will have interests in 35 UK onshore licences and one offshore licence, comprised of 109 sites with inventory of 250 wells, 86 of which are currently producing.

The CPR estimates that the Enlarged Group will have production of approximately 2,140 boe/d in the year ending 31 December 2012. With an aggregate of 11.1 MMboe 2P reserves comprised of 9.6mmstb of oil and 8.7 Bscf of gas. The CPR further estimates combined assets of the Enlarged Group of 316.5 MMboe of 2C resources.

There will be 3 main collection/treatment centres located at the Welton Gathering Centre, Gainsborough 5 Processing Hub and the Holybourne Oil Terminal from where production will be delivered to off-takers by road trucks and rail.

The Company currently operates in a highly realisable gas price environment; 2012-2013 forward gas prices are approximately \$9.00 mcf (approximately 60p/therm).

On the basis of the information currently available to the Board with respect to the Star producing assets and with access to cash in the form of the cash currently held by IGas, cash-flows from the Star production assets and potentially the US\$15 million working capital facility (currently uncommitted) IGas intends to continue the development of its CBM assets in conjunction with the development of the Star assets. In this context the Board was pleased to be able to employ debt from a leading lender in the sector to finance substantially the entire Acquisition price when market conditions are generally difficult and unpredictable.

At Keele, the technical work undertaken suggests that a work over will be required to optimise potential production. IGas has now extended the planning permission at the site to 22 December 2012 and such work will be considered as part of the combined optimised work programmes being developed.

At Point of Ayr we will seek a further extension to the licence term as we continue attempt to secure surface access to the potential reservoir.

As part of portfolio rationalisation IGas has relinquished PEDL 92, which was not considered material, and which is reflected in the CPR prepared by Senergy as set out in Part 4 of this Admission document.

The Company is developing a combined optimised work programme for the Enlarged Group based on its findings from DG-3 and DG-4, maximising synergies using Star's execution and its tax profile to obtain maximum results from capital expenditure opportunities in the Enlarged Group.

## **8. Reasons for the Acquisition**

Your Board believes that by bringing together the existing assets of the Company with the exploration assets of the Star Group there is an opportunity to create an Enlarged Group with significant economies of scale, a balanced portfolio of booked reserves and material resources and an experienced execution team.

The Star Group being acquired employs 143 persons inclusive of a senior technical team with a proven track record for delivering resources and experienced site operators. IGas has for some time been recruiting appropriate experienced and qualified personnel for its own operations and the Acquisition will deliver not only hydrocarbon assets but a team of experienced professionals capable of managing those assets and also of assisting in the management of the Company's existing assets.

In addition, there are tax losses within the IGas Group and the Star Group which can be utilised by the Enlarged Group. Star also holds a number freehold land titles in valuable locations, which will be of value to the Enlarged Group. The Star Group also brings with it owned and accessible production equipment.

The Board believes that the Enlarged Group will be one of the largest onshore producers of hydrocarbons, and one of the largest exploration and production companies dedicated to UK onshore hydrocarbon production. The Board further believes that the creation of the Enlarged Group will facilitate the Company's ability to raise future finance to further develop the assets of the Enlarged Group on the basis of being a creditable operator in terms of size in the UK onshore market. The acquisition of the Star Group presents a number of operational and logistical synergies including access to equipment and supply chain synergies.



## 9. Dividend Policy

The Board currently believes it is in the best interests of the Company and its shareholders to reinvest profits in order to drive growth.

## 10. Taxation

General information relating to UK taxation is summarised in Part 7 of this document. **A Shareholder or potential Shareholder who is in any doubt as to his or her tax position, or is subject to tax in a jurisdiction other than the UK, should consult his or her professional advisers immediately.**

## 11. Admission to AIM and dealings

The Acquisition constitutes a reverse takeover under the AIM Rules for Companies and is therefore dependent upon the approval of Shareholders being given at the General Meeting, notice of which is set out at the end of this document. A Resolution will be proposed at the General Meeting, *inter alia*, to approve the Acquisition. If the Resolutions are duly passed at the General Meeting, an application will be made for the Issued Share Capital to be re-admitted to trading on AIM.

The Ordinary Shares were suspended on 19 September 2011. Following posting of this Admission document dealings in the Ordinary Shares are expected to recommence on 23 November 2011.

Admission is expected to take place on AIM at 8.00 a.m. on 12 December 2011.

The Ordinary Shares have been admitted to CREST and accordingly enable for settlement in CREST on the date of Admission. Accordingly, settlement of transactions in Ordinary Shares following Admission may (subject to overseas laws) take place within the CREST system if any shareholder so wishes. CREST is a voluntary system, and holders of Ordinary Shares who wish to receive and retain share certificates will be able to do so.

## 12. General Meeting

Set out at the end of this document is a Notice of General Meeting of the Company to be held at the offices of Morrison & Foerster (UK) LLP, CityPoint, One Ropemaker Street, London EC2Y 9AW at 10.45 a.m. on 9 December 2011.

At the General Meeting, the following Resolutions will be considered by the holders of the Ordinary Shares of which Resolutions 1 and 2 will be proposed as ordinary Resolutions and Resolution 3 will be considered as a special resolution.

- (a) the first Resolution is to approve the Acquisition in accordance with the terms of the Acquisition Agreement;
- (b) the second Resolution is to increase the borrowing limit in the Articles to allow the Company to drawdown pursuant to the Credit Agreement, the current limit being insufficient authority for the purpose of the borrowings and the Articles allowing for the limit to be changed by ordinary resolution. The Resolution will also specifically approve the entry by the Company into the Credit Agreement; and
- (c) the third Resolution is to disapply statutory pre-emption rights with respect to the issue of shares for cash consideration up to a maximum of 15% of the current issued share capital of the Company and in respect of the Company's long-term incentive plans up to a maximum of 5,344,124 Ordinary Shares. The Board is proposing these new authorities given that the issue of the Warrants to Macquarie utilises substantially all of the Company's existing non-pre-emptive authority. Whilst the Directors have no current intention to use the proposed authority, the Directors believe that in current market conditions it is important to maintain maximum funding flexibility. The proposed increase in the authority to allot on a non pre-emptive basis in connection with the Company's long-term incentive plan is to give the Company maximum flexibility to incentivise management within the Enlarged Group, where it is anticipated that equity based awards will be employed rather than historic cash-based bonus structures.

The ordinary resolutions will require a simple majority of those Shareholders voting in person or on a poll by proxy in favour of the Resolutions whilst the special resolution requires a 75% majority on the same basis. Resolution 1 is conditional upon the passing of Resolution 2. Resolution 3 is not conditional on Resolutions 1 and 2 and so stands alone.

### **13. Irrevocable undertakings**

The Board has obtained irrevocable undertakings from shareholders and directors holding, in aggregate, 89,627,390 shares, representing 55.90% of the Issued Share Capital to vote in favour of the Resolutions to be proposed at the General Meeting to implement the Acquisition. The Directors have irrevocably undertaken to vote in favour of the Resolutions to implement the Acquisition with respect to their holdings totalling 38,483,847 shares or 24.00% of the Issued Share Capital. Accordingly, the Company is in receipt of aggregate undertakings to vote in favour of the Resolutions to implement the Acquisition.

### **14. Further Information**

Your attention is drawn to Parts 2 to 9 (inclusive) of this document which provide additional information on the Enlarged Group and on IGas and Star. In addition the Company has changed its accounting reference date to 31 March 2011 and intends to change the accounting reference date for all subsidiaries in the Enlarged Group in due course.

### **15. Action to be taken**

**You will find enclosed with this document a Form of Proxy for use at the General Meeting or at any adjournment thereof. You are requested to complete, sign and return the Form of Proxy in accordance with the instructions printed on it whether or not you propose to attend the General Meeting in person in accordance with the instructions printed on it and return it as soon as possible, but in any event so as to be received no later than 10.45 a.m. on 7 December 2011, by the Registrars, Computershare Investor Services PLC, The Pavilions, Bridgwater Road, Bristol BS99 6ZY.**

Alternatively you may deliver a Form of Proxy by e-mail to IGas@mofo.com. CREST members may instead utilise the CREST electronic proxy appointment service. Procedures for these forms of electronic communications are set out in the notes to the Notice of General Meeting at the end of this document. The lodging of the Form of Proxy will not preclude you from attending and voting at the meeting in person if you so wish.

### **16. Recommendation**

The Directors, who have received financial advice from RBS Hoare Govett Limited, consider the terms of the Acquisition to be fair and reasonable so far as Shareholders as a whole are concerned. In giving its advice, RBS Hoare Govett Limited has relied upon the Directors' commercial assessments of the Acquisition. Accordingly, the Directors unanimously recommend that Shareholders vote in favour of the Resolutions to be proposed at the General Meeting as they have irrevocably undertaken to do in respect of their own beneficial shareholdings amounting to, in aggregate, 38,483,847 Ordinary Shares (representing approximately 24.00% per cent. of the existing Issued Share Capital).

Yours faithfully,

**Francis Gugen**  
**Chairman**

## PART 2

### GENERAL INFORMATION ON IGAS ENERGY PLC

#### 1. History and development of the IGas Group

IGas was set up in 2003 to produce and market domestically sourced gas from unconventional sources such as coal bed methane (CBM) and shale. It is currently focussed on developing the CBM potential of its acreage.

IGas has licences to extract hydrocarbons across the north of Wales and the north of England, covering an area of approximately 1,455km<sup>2</sup>. Additionally, IGas has ownership of ten Petroleum Exploration and Development Licences ("PEDL") in the UK, one methane drainage licence and three offshore blocks under one Seaward Petroleum Production Licence. Its areas of operation are Cheshire, Flintshire and Staffordshire. IGas is the operator and sole owner of each of its licences.

IGas' assets are located close to its potential customer base, and to the national gas network. IGas is therefore in a strong position to secure high gas prices for its production and to contribute to the UK's security of supply.

#### 2. Directors and senior managers

Brief biographies of the Directors are set out in Part 8 of this document together with further details of their current and past directorships, and certain other important information regarding the Directors.

#### 3. Employees

The Company currently employs 15 personnel, of whom 7 are technical and 8 are administrative.

#### 4. Corporate Strategy

IGas is incorporated in England and Wales and listed on AIM. It is a leading developer of CBM in the UK, producing North Sea-quality gas from virgin coal seams. The business focuses on the development of a series of CBM assets in England and Wales, with the objective of becoming a significant onshore producer of hydrocarbons.

The CBM industry in the UK is likely to become an increasingly attractive alternative potential source of gas given the continuing decline in natural gas production from the North Sea. In the US and Australia, CBM already accounts for around 7 per cent. of their energy use. IGas believes that CBM could provide a similar proportion of the UK's energy in a relatively short time.

Independent analysis by leading reservoir engineers, Senergy, has confirmed that IGas has an estimated net Contingent Recoverable Resource of 1,811Bscf of gas (2C). The Contingent Recoverable Resource is derived from a statistical aggregation of Contingent Recoverable Resource ranges calculated on an individual coal seam basis.

IGas may also have the potential to explore shale. Shale involves extracting gas from rock which contains quantities of natural gas. Although IGas intends to conduct further work to better understand the potential of its shale holding, it has no immediate plans to develop this resource.

#### 5. Current Trading Prospects

Please see Section 7 of Part 1 of this Admission document.

#### 6. Acquisitions and disposals

Island Gas Limited, a wholly owned subsidiary of IGas, historically had varying ownership interests in eleven PEDLs and three offshore blocks held under a seaward petroleum production licence ("SPPL") in the UK. Island Gas Limited's former joint venture partner, Nexen Exploration UK Limited, held the balance of the ownership interests in these PEDLs until IGas acquired the entire issued share capital of Nexen Exploration UK Limited in early March 2011.

The relationship between Nexen Exploration UK Limited and IGas began in December 2005 when, following a period of due diligence by Nexen Exploration UK Limited over the original seven Licences, geological data and IGas' management team, the two parties agreed a farm-in allowing Nexen Exploration UK Limited an initial 80 per cent. equity interest in and the rights to operate the seven PEDLs then held by IGas, namely, PEDLs 40-1, 56-1, 78-1, 115-1, 115-2, 116 and 145. Nexen



Exploration UK Limited and IGas subsequently successfully applied together on a 50-50 basis for acreage in the 24th Seaward Round in 2007 and acquired the adjacent on-shore block PEDL 107.

The joint venture arrangements were subsequently extended to cover new Licence acquisitions in May 2008 through the 13th onshore licensing round.

In August 2009, IGas increased its equity ownership in PEDLs 40-1, 56-1, 78-1, 115-1 and 115-2 from 20 per cent. to 35 per cent. in a farm-up transaction with Nexen Exploration.

In a further farm-up transaction with Nexen Exploration UK Limited in November 2009, IGas increased its equity ownership in PEDL 107 and SPPL 1481 from 50 per cent. to 75 per cent., and its equity ownership in PEDLs 116, 145, 184, 190 and 193 from 20 per cent. to 35 per cent. As part of these arrangements IGas assumed operatorship of PEDL 107 and SPPL 1481, subject to approval by DECC, which was granted on 9 February 2011.

Under these farm-up arrangements IGas was liable to carry Nexen Exploration UK Limited's share of up to £7 million of gross expenditure, which obligation ceased to have any economic effect when IGas acquired Nexen Exploration as the financial arrangements now consolidate within IGas.

The Board considered that the acquisition of Nexen Exploration UK Limited marked a major turning point in the history of IGas. As a result of the acquisition of Nexen Exploration UK Limited, IGas more than doubled its Contingent Resources, with a consequent effect on future production and giving IGas recoverable gas potentially sufficient to supply electricity to an estimated fifteen per cent. of UK households for 15 years. Additionally, IGas became operator of all the Licences, in addition to the operatorship which it already held of the Point of Ayr Licences.

As a result of the acquisition of Nexen Exploration UK Limited, 39,714,290 Ordinary Shares were issued to Nexen Petroleum UK Limited (renamed IGas Exploration UK Limited), representing approximately 24.77% of the issued share capital of IGas, after the capital raising in March. The capital raising by the Company secured gross proceeds of £20.625 million for 27,500,000 new Ordinary 50p Shares when this acquisition became unconditional on 9 March 2011.

## 7. Current IGas Licences<sup>3</sup>

Licence	IGas Interest %	Operatorship
PEDL 40-1	100	IGas
PEDL 56-1	100	IGas
PEDL 78-1	100	IGas
PEDL 78-2	100	IGas
PEDL 107	100	IGas
PEDL 115-1	100	IGas
PEDL 115-2	100	IGas
PEDL 116	100	IGas
PEDL 145	100	IGas
PEDL 184	100	IGas
PEDL 190	100	IGas
PEDL 193	100	IGas
SPPL 1481	100	IGas
MDL036	100	IGas

## 8. Dividend Policy

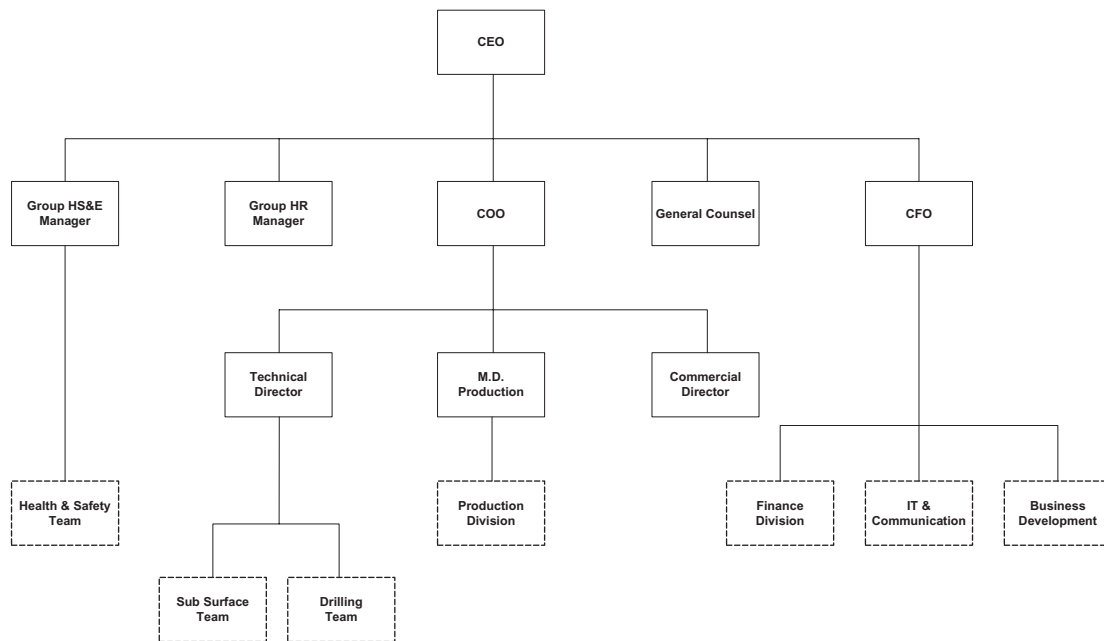
It is the Board's policy to invest retained earnings to fund further development and growth of the oil and gas production and development business and in particular its CBM activities. The Board will review its policy periodically in the context of the Company's financial position.

<sup>3</sup> The Company currently also holds 100% interest in PEDL 92-1 SE/62 and SE/72 but has informed the DECC of its intention to relinquish this licence and intends to file the requisite Relinquishment Report by 6<sup>th</sup> December 2011 in order to complete this process.

The Company had another methane drainage licence MDL038 which expired on 7 June 2011.

## 9. Organisational Structure

The following chart shows the initial internal organisational structure of the Company following the Acquisition:



## **PART 3**

### **INFORMATION ON STAR ENERGY GROUP LIMITED**

#### **1. OVERVIEW OF COMPANY**

Founded in 1999, Star Group is an onshore oil producer and one of the main developers of underground gas storage using depleted oil and gas reservoirs. Star Group employs over 150 people<sup>4</sup> and has a turnover in excess of £50 million.

Star has interests in 25 UK onshore licences in the East Midlands and the Weald Basin and is the appointed operator in 23 of the 25 licence areas. In total, Star occupies or owns 105 sites with an inventory of 247 wells (of which 85 are currently still in operation). The operating companies in East Midlands and the Weald Basin are responsible for the day-to-day operations of the fields and are supported by central services and development teams.

Star Energy Group Limited is headquartered in London and incorporated in England and Wales with registered number 05054503 and is a wholly-owned subsidiary of Petronas International Corporation Limited.

#### **2. Company History**

##### **November 1999**

Star Energy is founded. Equity financing provided by European Acquisition Capital enables Star Energy to acquire its initial Weald Basin assets from Soco International.

##### **June 2000**

Star Energy continues to expand by acquiring assets in the East Midlands from Roc Oil Company.

##### **May 2004**

Star Energy Group Limited was incorporated as a private limited company on 24 February 2004 with company number 05054503. On 4 May 2004, Star Energy Group Limited changed its status to become a public limited company and its shares were admitted to trading on AIM on 12 May 2004.

##### **August 2005**

Star Energy Group PLC acquired Pentex Management Limited ("Pentex"), a UK based energy company whose primary assets were 15 onshore licences and appraisal and exploration assets in the East Midlands Basin and Weald Basin, in August 2005.

##### **November 2005**

Star Energy Group PLC announced that its first gas storage facility, the 10 Bscf Humbly Grove Gas Storage Project, commenced injection operations. The entire capacity of the facility was contracted to Vitol SA, a major oil and gas trading company.

##### **February 2006**

The Humbly Grove gas storage facility in Hampshire is handed over to the customer, Vitol SA, for full customer nominations.

##### **March 2008**

On 19 December 2007 Petronas made a recommended increased and unconditional cash offer for all of the issued and to be issued share capital of Star Energy Group PLC which was not already owned by Petronas. Trading of Star Energy Group PLC shares on AIM was cancelled on 7 March 2008, on which date Star Energy Group PLC became a wholly-owned subsidiary of Petronas.

##### **September 2009**

The re-registration of Star as a private company, instead of a plc, took place on 29 September 2009.

<sup>4</sup> Of which 143 employees form part of the Acquisition.

### 3. Group Structure

As part of the Acquisition, the Company will acquire the entire issued share capital of Star Energy Group Limited and its subsidiaries: Star Energy Limited, Star Energy Oil and Gas Limited, Star Energy Oil UK Limited, Star Energy (East Midlands) Limited and Star Energy Weald Basin Limited and will take ownership of all Star's producing oil and gas assets, with the exception of Humbly Grove and the Herriard fields, which will be carved out from the current business, together with all the subsidiary entities that concentrate on gas storage which will also be carved out from the Star Group.

The Star Subsidiaries that are being acquired as part of the Acquisition include:

#### Star Energy Group Limited

Headquartered at Grand Buildings, 1st Floor, 1-3 Strand, London WC2N 5EJ. The London office is the base for the executive directors together with the planning and financial functions.

#### Star Energy Limited

Also headquartered at Grand Buildings, Strand, London and is the group's operating consolidation company.

#### Star Energy Weald Basin Limited

Comprises the Weald Basin assets centred around the Humbly Grove gathering centre in Hampshire. In this area, the company owns and operates six producing oilfields, two gas fields and a number of power generation installations. The oil and gas fields are Humbly Grove, Herriard, Storrington, Horndean, Palmers Wood, Bletchingley and Albury.

#### Star Energy (East Midlands) Limited

Comprises the East Midlands assets centred around the Welton gathering centre in Lincolnshire. The oil and gas fields are Welton, Stainton, Nettleham, Cold Hanworth, Scampton, and Scampton North.

#### Star Energy Oil UK Limited

Operates the oilfields centred around Stockbridge in Hampshire including Avington, and Goodworth.

#### Star Energy Oil and Gas Limited

Operates oil fields in Nottinghamshire, Lincolnshire and Leicestershire. These fields comprise Gainsborough/Beckingham, Egmonton, Corringham, Glentworth, East Glentworth, Rempstone, Long Clawson, Bothamsall and South Leverton. In addition, the company operates a number of power generation installations and supplies natural gas to a number of industrial consumers in Gainsborough.

### 4. Licences

As part of the Acquisition, the Company will acquire the following Star Licences:

<u>Licence</u>	<u>Equity Holder</u>	<u>Operator</u>
PL220	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
PL178	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
PL179	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
ML3	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
ML7	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
PEDL6	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
ML4	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
ML6	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
AL9	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
PL199	Star Energy Oil & Gas Limited (100%)	Star Energy Oil & Gas Limited
PL233	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
DL2	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited

<u>Licence</u>	<u>Equity Holder</u>	<u>Operator</u>
PEDL21	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
PEDL235	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
PL249	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
DL4	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
PL205	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
ML21	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
ML18	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
PL182	Star Energy Weald Basin Limited (100%)	Star Energy Weald Basin Limited
PEDL70	Star Energy Weald Basin Limited (50%)	Star Energy Weald Basin Limited
PL211	Star Energy Weald Basin Limited (89.13%)	Star Energy Weald Basin Limited

## 5. Operations

Star has interests in 25 UK onshore licences in the East Midlands and the Weald Basin and is the appointed operator in 23 of the 25 licence areas. In total, Star occupies or owns 105 sites with an inventory of 247 wells (of which 85 are currently still in operation). The operating companies in East Midlands and the Weald Basin are responsible for the day-to-day operations of the fields and are supported by central services and development teams.

### The East Midlands

The East Midlands has two primary production area centres: Welton and Gainsborough / Beckingham. The Welton area production wells are beam pump type. The Welton area fields comprise:

- Welton A/B/C;
- Nettleham;
- Scampton (N&S);
- Stainton; and
- Cold Hanworth.

The Welton Gathering Centre ("WGC") is the hub reception and process facility. The produced oil, gas and water are separated at the WGC. Welton A/B/C and Nettleham flow to WGC via pipelines. All other fields have oil and water storage and tanker pick-up. At WGC product oil is exported to Conoco Immingham via road tanker, gas is used for power generation and produced water is pumped for reinjection at Welton A. WGC is manned 24 hours per day. All other Welton area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

The WGC has been designed for much higher throughputs than current use (6,000 bopd versus current 950 bopd) and previously included many more process unit operations including gas sweetening and amine units, fuel gas compression and GT power generation. The WGC site has a large plot area. There are many site process unit operations that are now not in service or isolated, though not disinvested, including a former rail export siding.

The Gainsborough / Beckingham facility manages its own production as well as the production from seven other oilfields:

- Corringham,
- Glentworth,
- East Glentworth,
- Rempstone,
- Long Clawson,
- South Leverton
- Bothamsall

Gainsborough / Beckingham wells flow to the Gainsborough-5 gathering and processing hub via pipelines. All other fields have oil and water storage and tanker pick-up. The Gainsborough-5 processing facility separates oil, gas and water. Oil is exported to Conoco Immingham via road tanker, gas is piped to Gainsborough-1 for power generation and produced water is pumped for reinjection. All Gainsborough / Beckingham area oil production wells are beam pump type.

Gainsborough-5 is manned 24 hours per day, Gainsborough-1 is manned during daytime hours and has 24 hour security and Long Clawson A is manned during daytime. All other Gainsborough area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

## **Weald Basin**

The Weald Basin sites cover the following areas: Stockbridge, Palmers Wood, Bletchingly, Storrington and Horndean, which are manned sites with daytime operators. The two sites at Palmers Wood are covered by one man as are the three sites at Horndean. The main Stockbridge site, Larkwhistle Farm is manned during the day and operators from this site also service the Hill Farm, Folly Farm, Goodworth and Avington sites. The Holybourne terminal is manned. The Albury gas field is presently suspended following drilling of a new well for potential gas storage use. It is planned to reinstall equipment for gas production and power generation for export.

Oil is exported by tanker from all sites except the Palmers Wood Coney Hill site which exports to the Palmers Wood Rooks Nest site by pipeline. There are plans to abandon this pipeline. There is also a pipeline into the Holybourne terminal from Humbly Grove. Produced water is either reinjected on site or trucked to another site for reinjection. Power is imported or generated by an on-site diesel generator. Oil is either exported by road tanker to the BP operated Hamble terminal on the Solent or by road tanker to the Star operated Holybourne storage facility for onward transport by rail (5,000 stb loads) to the Esso Fawley refinery, which is generally once per week. Generally oil from Stockbridge is exported to Hamble and oil from the other fields is exported to Holybourne / Fawley. However, there is flexibility of operation and any production can be exported via either route.

The production department has two work over rigs, four hot water flush rigs, one hot oil flush rig, and one flushby unit for pulling beam pump well rods. Demand for the rigs is high.

## **6. Employees**

The Star Group currently employs a total of 143 employees who will form part of the Acquisition.

A total of 28 employees which are not included in the figure shown in the paragraph above, are excluded from the Acquisition and will remain with Petronas as part of its remaining gas storage division.

## **7. Material Contracts**

### **7.1 Shareholders Multicurrency Loan Agreement**

On 30 June 2008 Petronas International Corporation Limited and Star Group Plc entered into an intra group loan agreement under which Petronas lent to Star Group plc the following:

- (i) US\$113,258,250 to fully repay its existing third party loan facility;
- (ii) US\$38 million to settle hedging expenses relating to existing oil prices; and
- (iii) GBP£15 million to finance existing businesses operational and capital expenses.

Prior written consent from Petronas is required in the event that there is a change of control in the borrower. The agreement is governed by Malaysian law, and will be partially released and partially assigned on Completion.

## PART 4

### COMPETENT PERSON'S REPORT ON IGAS AND STAR



## Competent Person's Report

Conducted for

**IGas Energy plc**

By

Irfan Sami, Joe McHenry, Jonathan Fuller, Guy Woodason, Chris de Goey,  
Barry Squire, Andy O' Connell

Final

K11IGA001L

November 2011



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Release to Client	
Date Released	15 November 2011



The Directors  
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London W1J 7AJ  
United Kingdom

The Directors  
RBS Hoare Govett Limited  
(Nominated Advisers)  
250 Bishopsgate  
London EC2M 4AA  
United Kingdom

15 November 2011

Dear Sirs,

In accordance with the instructions of the Directors of IGas Energy plc ("IGas", or "the Client"), Senergy (GB) Limited ("Senergy") has reviewed the interests IGas holds in onshore UK gas assets, as well as the onshore UK oil and gas producing assets that IGas has agreed to acquire from PETROLIAM NASIONAL BERHAD ("PETRONAS") (the "Star Assets") at the time of writing this report. The assets evaluated are listed overleaf and comprise producing fields, development opportunities and prospective acreage in the assets. IGas has acquired a 100% equity interest in its UK gas licences and is the operator of these licences. At completion of the transaction with PETRONAS, IGas will also have 100% equity interest and operatorship in most licences on the Star Assets, apart from a few small fields that are operated under a Joint Venture agreement.

Senergy was requested to provide an independent evaluation of the recoverable hydrocarbons expected for each asset categorised in accordance with the 2007 Petroleum Resources Management System prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers ("SPE") and reviewed and jointly sponsored by the World Petroleum Council ("WPC"), the American Association of Petroleum Geologists ("AAPG") and the Society of Petroleum Evaluation Engineers ("SPEE").

Recoverable volumes are expressed as gross and / or net technical reserves or resources. Gross reserves or resources are defined as the total estimated petroleum to be produced from the fields evaluated from 30<sup>th</sup> June 2011. Net reserves or resources are defined as that portion of the gross reserves or resources attributable to the interests owned by IGas.

Standard geological and engineering techniques accepted by the petroleum industry were used in estimating recoverable hydrocarbons. These techniques rely on engineering and geo-scientific interpretation and judgement; hence the resources included in this evaluation are estimates only and should not be construed to be exact quantities. It should be recognised that such estimates of hydrocarbon resources may increase or decrease in future if there are changes to the technical interpretation, economic criteria or regulatory requirements. As far as Senergy is aware there are no special factors that would affect the

operation of the assets and which would require additional information for their proper appraisal.

The content of this report and our estimates of reserves and resources are based on data provided to us by IGas and by PETRONAS (through the transaction dataroom and supported by meetings). Site visits to the Star Assets have been undertaken. Senergy confirms that to our knowledge there has been no material change of circumstances or available information since the report was compiled.

Senergy acknowledges that this report may be included in its entirety, or portions of this report summarised, in documents prepared by IGas and its advisers in connection with commercial or financial activities and that such documents, together with this report, may be filed with any stock exchange and other regulatory body and may be published electronically on websites accessible by the public, including a website of IGas.

## Executive Summary

This report comprises an independent evaluation of the recoverable hydrocarbons for the interests IGas holds in onshore UK gas assets, as well as the onshore UK oil and gas assets that IGas has agreed to acquire from PETROLIAM NASIONAL BERHAD ("PETRONAS") (the "Star Assets"). The assets evaluated comprise producing fields, development opportunities and exploration prospects. Post transaction completion, IGas is expected to hold a working interest in most licences of 100% as well as have operatorship of all licences. The detailed interest holdings of IGas are provided in **Table 1.1** and in **Table 1.2**.

IGas is an AIM listed oil and gas exploration and production company that owns exploration and development licences in gas assets onshore UK, including Coal Bed Methane ("CBM") and shale gas. As IGas is developing its gas portfolio, it is seizing an opportunity to acquire a mature onshore UK oil and gas portfolio of producing assets through a transaction with PETRONAS ("the Transaction"). In this transaction, IGas will acquire the entire equity of Star Energy Group Limited and its subsidiaries: Star Energy Limited, Star Energy Oil and Gas Limited, Star Energy Oil UK Limited, Star Energy (East Midlands) Limited and Star Energy Weald Basin Limited and will take ownership of all Star's producing oil and gas assets, with the exception of Humbly Grove and Herriard fields, which will be carved out from the current business, together with all the subsidiary entities that concentrate on gas storage which will also be carved out from the Group<sup>1</sup>.

The volumes reported in the summary tables are those within the licence attributable to the production share of IGas. The individual resources descriptions provide the gross whole field volumes and the volume distribution range for the resources for each opportunity. Where appropriate, gas resources have been converted to an oil equivalent using 5.8 Mscf = 1 boe.

As the Transaction is not yet completed and for clarity, this document reports the IGas gas assets separately from the Star Assets.

## Star Assets

The Star Assets comprise of 25 producing oil and gas fields in the Weald Basin and in the East Midlands area. The latter area stretches from the East Midlands Shelf to the Gainsborough Trough and the Widmerpool Gulf. The reservoirs are found within the Upper and Basal successions of the Carboniferous era with Westphalian and Namurian sandstones being the main reservoir horizons.

The Weald Basin is located onshore in Southern England north of the Isle of Wight. The earliest phase of oil migration occurred towards the end of the Lower Cretaceous, the reservoirs are sealed by the Purbeck anhydrite, the Kimmeridge Clay and the Oxford Clay for the Portland Beds, Corallian and Great Oolite reservoirs respectively. The Great Oolite interval is by far the dominant reservoir in the Weald Basin. All fields are mature producing assets and many have a water cut of 50% or more.

The data available in the dataroom was limited to historic oil and water production, some historic and indicative future cost data and a prior third party CPR on the assets dating from

<sup>1</sup> Although the Transaction is not yet completed, in this CPR it is assumed that IGas and Star have agreed that production from the Humbly Grove and Herriard fields will be provided to IGas for an agreed cost and provided into the market place by IGas

2007. No seismic, static models, nor HIIP estimates were provided. As such, forecasts and reserves estimates have largely been based on Decline Curve Analysis.

A summary of the Star Asset Reserves and Contingent Resources is provided in the two tables below. A breakdown of Reserves and Contingent Resources by field is provided in **Table 1.3**.

Resources Net to IGas <sup>2</sup>		
	Proved plus Probable (2P)	2C <sup>3</sup>
Volume Oil (MMstb)	Reserves	Contingent Resources
Star Assets	9.63	4.46
<b>Total Oil (MMstb)</b>	<b>9.63</b>	<b>4.46</b>
Volume Gas (Bscf)		
Gainsborough/Beckingham	6.50	N/A
Albury	2.20	N/A
<b>Total Gas (Bscf)</b>	<b>8.70</b>	<b>N/A</b>
<b>Total Hydrocarbons (MMboe)</b>	<b>11.13</b>	<b>4.46</b>

Reserves Net to IGas <sup>2</sup>			
Asset	Proved (1P)	Proved plus Probable (2P)	Proved plus Probable plus Possible (3P)
Volume Oil (MMstb)			
Star Assets	5.68	9.63	14.85
<b>Total Oil (MMstb)</b>	<b>5.68</b>	<b>9.63</b>	<b>14.85</b>
Volume Gas (Bscf)			
Gainsborough/Beckingham	4.20	6.50	7.70
Albury	0.70	2.20	2.70
<b>Total Gas (Bscf)</b>	<b>4.90</b>	<b>8.70</b>	<b>10.40</b>
<b>Total Hydrocarbons (MMboe)</b>	<b>6.52</b>	<b>11.13</b>	<b>16.65</b>

The licences on a number of these fields were due to expire in the near future and if applying PRMS rules strictly, Senergy would not be able to assign Reserves to such resources. However, we have received reassurance from Star and from the due diligence legal team that these licences are very likely to be extended in a straightforward manner and as such Senergy has not discounted any resources on this basis.

The produced gas is currently mostly used to generate power for internal consumption, with the option to sell into the UK grid. Due to power generation capacity limitations only a limited amount of gas has been produced in the recent past. Whilst this has affected the production profiles for the remaining resources, Senergy has not discounted these resources and classified them as Reserves, because Senergy believes that these resources can easily find a way into the UK market.

<sup>2</sup> The proportion of gross reserves, resources or value for the attributable interests of IGas. These volumes exclude Humbly Grove and Herriard

<sup>3</sup> 2C: in a resource size distribution this is the Base case or P<sub>50</sub> (50% probability) or Mean volume. This is defined for each asset in the body of the report.

## IGas Gas Assets

The IGas Coal Bed Methane ("CBM") and shale gas assets are in ten onshore and three offshore licences located in Cheshire, Flintshire, Staffordshire and Yorkshire counties. Total area under license is 1,455 km<sup>2</sup>. IGas has a 100% working interest in all licences.

The assets were reviewed for CBM potential by DeGolyer and MacNaughton<sup>4</sup>, who established statistically aggregated Gross Contingent Resources of 1.7 Trillion Cubic Feet (2C). The CBM assets were also reviewed by Equipoise Solutions Ltd, who also assembled and reviewed the available shale gas data.

Existing reports are based mostly on the voluminous coal core data available from the mining industry. Modern petroleum core and log data from several wells was acquired in the period 2008 to 2010. Some licences have more information than others but in general the coals' measures are adequately to well defined.

Senergy has analysed the data provided by IGas to estimate resources on a field level basis. The information was reviewed using experiences from successful CBM development projects in North America and Australia. Senergy did not carry out independent interpretation of each seam thickness.

Senergy used existing GIIP estimates combined with development and recovery efficiencies to estimate Contingent Resources on a field level basis. Senergy's estimate for total Contingent Resources Net to IGas is depicted in the table below.

Contingent Resources Net to IGas			
Stochastic Aggregate of all UK Fields	1C <sup>5</sup>	2C	3C
<b>Total Gas (Bscf)</b>	1,400	1,811	2,389
<b>Total Hydrocarbons (MMboe)</b>	<b>241</b>	<b>312</b>	<b>412</b>

The IGas CBM development should benefit from the modern petroleum core / log data and the production data available, as well as from knowledge gained from drilling and operating the Doe Green wells over the last years. The optimal development zones and drilling and completion techniques for IGas CBM assets will still take time to fully develop. Enhanced project definition and production projections based on the Doe Green results could result in sufficient confidence levels necessary for resources classification as Possible or Probable Reserves.

### Shale gas

The information reviewed indicates that the Holywell shale is present on some of the PEDL's. The data is only from a few wells and outcrops and as a result we have made no further enquiries and could not verify the Equipoise reported GIIP estimates.

<sup>4</sup> Previous work by DeGolyer and others also included licence PEDL 92-1, which has been excluded for the purposes of this report

<sup>5</sup> As defined in the 2007 Petroleum Resources Management System prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE).

## Economics

A cash flow analysis has been undertaken in respect of IGas' net attributable resources. The un-risked Net Present Value (NPV) at a 10% discount factor has been calculated on production from the Star Assets.

IGas Net Attributable NPV (10%) Reserves (Star Assets) in £MM		
Proved (1P)	Proved plus Probable (2P)	Proved plus Probable plus Possible (3P)
70.8	127.3	176.8

Additional IGas income, including from petroleum and water handling on behalf of the assets (including Humbly Grove and Herriard) and from operational services provided to the Star gas storage business, results in an additional NPV(2P, 10%) of £20.2MM, resulting in a Total NPV of £147.5MM.

Sensitivity analysis indicated that the NPV is most sensitive to fluctuations in oil price, despite a portion of the sales volumes being hedged.

No cash flow analysis was carried out on the IGas UK Gas Assets.

## Assessment Approach and Standards Applied

The technically recoverable volumes presented in this report are based on a review of the independent interpretations conducted on the assets.

Reserves and resources are reported at estimated economic or technical cut-off rates agreed with IGas and are otherwise derived according to the 2007 Petroleum Resources Management System prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers ("SPE") and reviewed and jointly sponsored by the World Petroleum Council ("WPC"), the American Association of Petroleum Geologists ("AAPG") and the Society of Petroleum Evaluation Engineers ("SPEE").

The IGas and Star Assets have been assessed as two separate entities. IGas has identified a number of post merger synergies and cost reduction opportunities on the Star Assets. However, these have not been considered in this report, apart from where these are specifically mentioned in the body of the document and the Star Assets have further been valued based on an expected continuation of existing operations.

## Professional Qualifications

Senergy (GB) Limited is a privately owned independent consulting company established in 1990, with offices in Aberdeen, London, Stavanger, Abu Dhabi, Kuala Lumpur, and Perth. The company specialises in petroleum reservoir engineering, geology and geophysics and petroleum economics. All of these services are supplied under an accredited ISO9001 quality assurance system. Except for the provision of professional services on a fee basis, Senergy has no commercial arrangement with any person or company involved in the interest that is the subject of this report.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'G. King', written over a horizontal line.

For and on behalf of Senergy (GB) Limited

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# 1 Introduction

This report was prepared by Senergy (GB) Limited ("Senergy") in August 2011 at the request of the Directors of IGas. It consists of an evaluation of the interests held by IGas in the UK onshore gas licences and of the interests that IGas will acquire through the transaction with PETRONAS (**Figure 1.1**, **Figure 1.2** and **Figure 1.3**). The data available for review varied depending on the asset and is noted in the body of the report for each asset.

Senergy was requested to provide an independent evaluation of the recoverable hydrocarbons expected for each asset. The report details the concession interests (**Table 1.1** and **Table 1.2**) and the reserves, contingent and prospective resources attributable to the assets (**Table 1.3** and **Table 1.4**).

## 1.1 Evaluation Methodology

Standard geological and engineering techniques accepted by the petroleum industry were used in estimating recoverable hydrocarbons. These techniques rely on engineering and geo-scientific interpretation and judgement; hence the resources included in this evaluation are estimates only and should not be construed to be exact quantities. It should be recognised that such estimates of hydrocarbon resources may increase or decrease in future if there are changes to the technical interpretation, economic criteria or regulatory requirements.

Senergy was requested to provide an independent evaluation of the recoverable hydrocarbons expected for the asset. The starting point in making an assessment of reserves or resources is an estimate of hydrocarbons-initially-in-place ("HIIP"). There are various methods that can be used. In this report, the quoted low, base and high HIIP volumes are probabilistic estimates calculated by Senergy. The specific method used for calculating HIIP is based on good industry practice but it should be emphasised that there is no single universally accepted method in use within the industry.

For probabilistic estimates the low is  $P_{90}$ , base is  $P_{50}$ , and high is  $P_{10}$ . The probabilistic estimates are generated using a "Monte Carlo" statistical approach. A resource size distribution is determined by the parameter input size ranges and their nature (e.g. whether normal, lognormal or other). The size of the distribution is particularly sensitive to the choice of "end member"  $P_{90}$  and  $P_{10}$  (i.e. 90% and 10% probability) input parameters especially for the key inputs of assumed hydrocarbon contact depth and reservoir thickness.

Where available, Senergy has used the existing interpretations (depth maps and log interpretations) and conducted independent interpretations where considered necessary to perform probabilistic HIIP volumetric distribution estimates. Resource volumes can be estimated using a variety of methods. In this report prospective resources are based on the application of a recovery factor range to the estimated HIIP volumes. In this report gas volumes are reported in billions of standard cubic feet (Bscf), condensate and oil volumes in millions of stock tank barrels (MMstb).

The risk factor for prospective resources is the geological chance of success (COS) and is usually the product of the four components of trap, seal, reservoir and hydrocarbon charge. Risk values are assigned to each of these elements for each defined prospect and these are multiplied together to give an overall COS. The AIM definition of exploration COS is the

chance to find a sufficient volume of hydrocarbons to test to the surface. Senergy ensured that the assigned value is appropriate to the quoted size distribution. The AIM definition of Risk Factor for Contingent Resources is the estimated chance, or probability, that the volumes will be commercially extracted.

## 1.2 Sources of Information

In conducting this review we have utilised information and interpretations supplied by Star and IGas, comprising geological, geophysical, engineering and other data presented by the operator. We have reviewed the information provided and modified assumptions where we considered this to be appropriate. We have accepted, without independent verification, the accuracy and completeness of this data.

Senergy has had access to a set of interpreted data and has not attempted a systematic review of raw data (either well logs or seismic) but has performed a critical assessment of the existing interpretation work supplied in the database. This interpretation of the Star Assets has largely focused on previous interpretations by third parties and on decline curve analysis based on historical production data. The database available for each asset is described in more detail in the field description sections of this report.

## 1.3 Concession Details

The assets are located onshore UK (**Figure 1.1**, **Figure 1.2** and **Figure 1.3**). **Table 1.1** and **Table 1.2** provide details of the licences held by IGas. Although a number of licences on the Star Assets will expire before the expected end of economic field life, Star management has assured Senergy that it is very likely that these licences will be extended or renewed by the UK authorities. We have therefore not cut off our production profiles or revenue estimates based on licence terminations. However, we advise the investor to perform his own due diligence in this regard.

## 1.4 Requirements

In accordance with your instructions to us we confirm that:

- We are professionally qualified and a member in good standing of a self-regulatory organisation of engineers and / or geoscientists;
- We have at least five years relevant experience in the estimation, assessment and evaluation of oil and gas assets;
- We are independent of IGas, their directors, senior management and advisers;
- We will be remunerated by way of a time-based fee and not by way of a fee that is linked to the Admission or value of IGas or of the Star Assets;
- We are not a sole practitioner;
- We have the relevant and appropriate qualifications, experience and technical knowledge to appraise professionally and independently the assets, being all assets, concessions, joint ventures or other arrangements owned by IGas or proposed to be exploited or utilised by it ("Assets") and liabilities, being all liabilities, royalty payments, contractual agreements and minimum funding requirements relating to the IGas' work programme and Assets ("Liabilities").



## 1.5 Standards Applied

In compiling this report we have used the definitions and guidelines set out in the 2007 Petroleum Resources Management System prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE) and reviewed and jointly sponsored by the World Petroleum Council (WPC), the American Association of Petroleum Geologists (AAPG) and the Society of Petroleum Evaluation Engineers (SPEE). The results of this work have been presented in accordance with the requirements of AIM, a Market operated by the London Stock Exchange, in particular as described in the "Note for Mining and Oil and Gas Companies - June 2009".

## 1.6 No Material Change

Senergy confirms that to its knowledge there has been no material change of circumstances or available information since the report was compiled and we are not aware of any significant matters arising from our evaluation that are not covered within this report which might be of a material nature with respect to the proposed admission.

## 1.7 Site Visit

Site visits to the Star UK operations have been conducted.

## 1.8 Liability

All interpretations and conclusions presented herein are opinions based on inferences from geological, geophysical, engineering or other data. The report represents Senergy's best professional judgment and should not be considered a guarantee of results. The use of this material and report is at the user's own discretion and risk.

## 1.9 Consent

We hereby consent, and have not revoked such consent to:

- the inclusion of this report, and a summary of portions of this report, in documents prepared by IGas and their advisers;
- the filing of this report with any stock exchange and other regulatory authority;
- the electronic publication of this report on websites accessible by the public, including a website of IGas; and
- the inclusion of our name in documents prepared in connection commercial or financial activities.

The report relates specifically and solely to the subject assets and is conditional upon various assumptions that are described herein. The report must therefore, be read in its entirety. This report was provided for the sole use of IGas on a fee basis. Except with the express written consent of Senergy this report may not be reproduced or redistributed, in whole or in part, to any other person or published, in whole or in part, for any other purpose.

## 2 Star Assets Technical Assessment

### 2.1 Data Available

Historical production data for 25 fields was available in the dataroom on a field by field and also on a well by well basis (**Reference 6**). This was usually provided as an average daily oil production rate for the month, a water cut and cumulative oil production volume. In some cases (like Stockbridge), monthly production volumes were provided instead of average daily rates. Gas Oil ratios (GOR) were also available for nine fields from which gas production volumes were calculated. However, this GOR data was not reliable in all cases, as pointed out during meetings with the operator. No production data was available for the Albury Gas Field.

Water and Gas injection data was also available as an aggregate for the Weald Basin and individually for Welton, Stockbridge and Gainsborough area (**Reference 7**).

Besides the production and injection data, the other key piece of technical information available was an independent Reserves Evaluation Report conducted by RPS in 2008 (**Reference 8**). This report has been relied on for most of the historical background and geological understanding about these fields in this CPR.

During discussions / meetings with the operator's technical contact (**Reference 9**), some useful information was also gathered about the fields in general, their current status and future plans that has guided the technical analysis performed in this report. Additional insight on the operations and specifically on the well stock and facilities was gained from site visits.

There was no documentation available in the dataroom to review the sub-surface details of the fields and the uncertainties associated to these. Considering the mature nature of most of the fields, Senergy's analysis has relied on the available production performance of the fields. As such no assessment could be done of prospective resources. Contingent Resources have been analysed based on the resources in the RPS report and on any reported developments since then. With the exception of the Avington field, no development plans were provided.

### 2.2 Methodology

Senergy has primarily based its evaluation on Production Decline Curve Analysis ("DCA") in the absence of other modeling work documentation in the dataroom. This has been done on a field basis using average daily production rates for each month. It has been assumed that effects of downtime, routine maintenance work and other such activity are, by their nature, implicit in this average production history.

The methodology followed in this DCA covers a range of production forecasts based on historical and / or recent production performance of the individual fields. This range of forecasts is categorised as Proved (1P), Proved plus Probable (2P) and Proved plus Probable plus Possible (3P) based on the level of uncertainty attached to each in accordance with the PRMS definitions. Apart from where indicated otherwise, this range has been generated using an exponential, hyperbolic and harmonic type of decline, respectively.

The production forecast profiles reported in this section are projecting 35 years and assuming 100% equity. For Reserves calculations, economic or commercial cut-offs have been applied as per Section 5 of this report. Monthly profiles for each of the fields have been provided in

Tables 2.25 through to 2.48. Longer term profiles have been provided in Tables 2.1 through to 2.24 as specified in the following paragraphs.

In view of time constraints and the large number of fields, some priority fields were selected based on the remaining potential they had to offer (as indicated by the RPS report) and the impact they could have on the valuation exercise. These included the fields: Bletchingley, Gainsborough / Beckingham, Horndean, Long Clawson, Scampton North, Stockbridge and Welton. A detailed review of production data and analysis was performed for these. For the other fields, mainly the 2008 forecasts by RPS formed the basis for the production forecasts, after a consistency check had been conducted for production history and projections.

Contingent resources categorised by RPS have been reviewed and commented on. Upside opportunities, that cannot currently be categorised by the above range, have been identified where possible. Senergy did not develop production profiles for the Contingent Resources. Neither has Senergy added any incremental activity into the development plan and related economics to account for the development of Prospective Resources, beyond the activity already internally approved by the current operator.

## 2.3 East Midland Fields

The East Midlands area stretches from the East Midlands Shelf to the Gainsborough Trough and the Widmerpool Gulf (**Figure 2.1**). The fields included in this analysis from this area are Bothamsall, Cold Corringham, East Glentworth, Egmanton, Gainsborough / Beckingham, Glentworth, Long Clawson, Nettleham, Rempstone, Scampton, Scampton North, Stainton, South Leverton and Welton.

The East Midlands reservoirs are found within the Upper and Basal successions of the Carboniferous era with Westphalian and Namurian sandstones being the main reservoir horizons. These are regionally extensive and represent a series of stacked fluvial channels within a deltaic environment. The traps are fault controlled and associated with the formation of the NE-SW Gainsborough Trough.

All these fields are mature producing assets with extensive production history data available. Many of the fields have wells that are producing at 50% water cut or more. There may be in-fill and sidetrack opportunities that still exist for some fields.

### 2.3.1 Bothamsall

Bothamsall lies in a highly faulted structure and produces from the lower Westphalian Sub-Alton and the Crawshaw sandstone. The Sub-Alton sandstone is thicker on the northern flank and gets thinner and inter-bedded with shales and mudstone in the south. It is the most prolific producing reservoir in the field. The Crawshaw sand is interpreted as a fluvial body and shows general thickening southwards.

Bothamsall was discovered in 1958 and thirteen wells were drilled to develop the field. Peak production of over 500 standard barrels of oil per day (bopd) was achieved in 1966 and since then the field has produced at steady decline. For the past 10 to 15 years the production decline trend has flattened and water cut has steadily risen to 60%.

Currently the field produces between 30 to 50 bopd typically and is expected to continue on this trend in the near future assuming nothing changes in terms of producing wells and facility

operations. The production history of the field is presented in **Figure 2.2**. No gas production data was available for Bothamsall.

Until end of May 2011, the field had produced a total of 3.111 MMbbl. There are currently no known plans of drilling any firm future wells.

Considering that Bothamsall is towards the latter stage of its decline and does not hold much remaining potential, RPS forecasts have been used for this field from second half 2011, after reviewing them for consistency checks with recent production history. These are presented in **Table 2.1** and **Figure 2.3**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Bothamsall	0.146	0.307	0.391	N/A

The Namurian Chatsworth Grit, which is a deeper sand, has also tested oil on this structure and may hold upside potential for this field.

### 2.3.2 Cold Henworth

Cold Henworth was discovered in April 1996 and produces from the Westphalian Basal Succession sand unit. Significant fracture system exists at and around the crest of the structure which has resulted in high water production from crestal well CH-07.

The field came on production at around 350 bopd and peaked at around 500 bopd in 2003. Since then it has shown a largely steady decline with current production levels between 80 to 100 bopd with water cuts of over 80%. GOR has remained quite uniform and at low levels in the past. Field production history of the field is given in **Figure 2.4**.

Until the end of June 2011, the field had produced a total of 0.8299 MMbbl of oil.

There is a chance of well failure because of increase in water production through the fracture network which could lead to loss of current production levels. Typical oil quality is about 28 °API. There are currently no known firm plans of drilling any future wells.

For Cold Henworth, RPS forecast has been used from second half 2011 after consistency checks with recent production history. These are presented in **Table 2.2** and **Figure 2.5**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Cold Henworth	0.033	0.226	0.361	N/A

### 2.3.3 Corringham

The Corringham field was discovered in 1958. Field appraisal demonstrated that the Corringham structure contained a number of possible reservoir zones within three main fault blocks. The principal producing horizons are the Silkstone and the Chatsworth reservoirs.

The field was shut-in from 1964 to 1973 due to legal issues. Infill drilling based on seismic and reservoir review sustained production levels around 60 bopd with a water cut of 11 per cent up to the end of the 1980's.

There was a sharp rise in production in 1990 peaking up to 400 bopd with the drilling of the CR-12 well which was completed in the Lower Chatsworth reservoir and the CR-5 well which was hydraulically fractured in the Silkstone reservoir.

However, since then the field has shown a steady decline in production even after re-instatement of water injection in 1997 (pressure depletion was confirmed for the Silkstone reservoir).

Currently the field produces at a rate of 55 to 75 bopd with 50% water cut. No gas production data is available for this field. Production history of the field is shown in **Figure 2.6**. No firm plans of any new wells are currently known. There is a side-track tentatively planned in 2015 (**Reference 10**) that could be treated as part of any Contingent Resources (associated 0.100 MMbbl).

The total oil produced from Corringham up to the end of May 2011 is 1.673 MMbbl.

For Corringham RPS forecast has been used from the second half of 2011. Necessary consistency checks with recent production history were done. These are presented in **Table 2.3** and **Figure 2.7**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Corringham	0.129	0.302	0.582	0.242

RPS assigned 0.242 MMbbl Contingent Resources to a sidetrack of CR-11 to a more crestal location close to the CR-7 well. This well was on hold at that time (2007) pending sub-surface work. Looking at the production history between then and now, it is assumed that this well did not come on. If that were the case, the Contingent Resources could still be in place. However, if the well actually had come on, but had not performed as expected the Contingent Resources would need to be considered lost.

#### 2.3.4 East Glentworth

East Glentworth is an easterly extension of the Glentworth field. The structure is a four-way dip closure rollover anticline and the hydrocarbon bearing reservoir is the Westphalian C Mexborough formation.

The field was discovered in 1987 and production started in 1993. In 2004 E-Glentworth 2 was drilled and started production at 120 bopd. Since then the field has followed a steady decline and currently produces between 20 to 40 bopd with a water cut of 40%. The GOR data looks very dubious and may be due to corrections realised / applied later in the life of the field. Production history for the field is shown in **Figure 2.8**. No firm plans of any new wells in the near future are known.

Cumulative oil production to end May 2011 was 0.257 MMbbl.

For East Glentworth, RPS forecast has been used from second half 2011. It has been checked for consistency with recent production decline trends. These are presented in **Table 2.4** and **Figure 2.9**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
East Glentworth	0.025	0.083	0.188	0.376

RPS assigned Contingent Resources of 0.3758 MMbbl to two new wells to drain extra reserves based on uncertainty in STOIP. The available information does not provide specific insight whether these wells were drilled or not, although the production data per well does not show any new wells coming on stream. In the absence of any other information, these Contingent Resources are believed to still be there. However, Senergy has not conducted a review of the STOIP uncertainty that RPS based its analysis on.

### 2.3.5 Egmonton

Egmonton field was discovered in 1955 and produced from the Upper Namurian and Lower Westphalian A fluvial deltaic sandstones. The production peaked in 1958 at over 900 bopd. Water flooding has been used from quite early on (started in 1960) and acid stimulation was carried out on producers recently (July 2005). These have resulted in arresting the production decline over time but presently the field is in its last stages of depletion.

Currently the field produces less than 5 bopd on average with a water cut of 60 to 70 %. In total, the field has produced 3.573 MMbbl of oil until the end of May 2011. Production history of the field is presented in **Figure 2.10**. No new wells were planned at the time of RPS report and it is assumed that this still stands considering the depletion stage of this field.

For Egmonton, the RPS forecast did not run to present time but the field has continued to produce intermittently. Therefore, a DCA forecast was generated based on the past ten years of production. These are presented in **Table 2.5** and **Figure 2.11**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Egmonton	0.002	0.002	0.016	N/A

No Contingent Resources have been identified for Egmonton.

### 2.3.6 Gainsborough / Beckingham

The Gainsborough field was discovered in 1959 and the extension, Beckingham, in 1964. The most important reservoir intervals are the Eagle Sandstone (Westphalian B), the Donald Sandstone (Westphalian A), the Flood Sandstone (Namurian) and the Condor.

**Figure 2.12** shows a top structure map of the field. The field structure consists of an east-west oriented faulted anticline, tilted to the east. North Gainsborough has a gas cap at the eastern flank, which is structurally deeper than the crest of the structure, with an underlying oil

leg. South West Gainsborough and East Beckingham are characterised by high quality reservoir and higher cumulative productions per well. West Beckingham is characterised by an east-west trending reservoir system divided by north-south trending faults.

**Figure 2.13** presents the historical production data for the field. Oil production peaked over 1,300 bopd in the early 1980's and since then has declined relatively steadily. However, intermittent production spikes are seen which are typically reminiscent of new wells coming on stream. In early 2000, decline arrested for sometime before returning to historical trend but the exact reason for this is not known. Currently, the field is producing around 175 bopd with a water cut of about 60%.

As of end of May 2011, the field had produced a total of 12.190 MMbbl of oil.

There is free gas production from the gas cap besides associated gas production from the field. However, no gas production data is available. It is understood that in the past all produced gas was used for on-site power generation and excess gas was distributed to gas customers in the local area. However, current status of local gas export is not exactly known.

The onsite power generation provides power not only for operations but was also exported to the grid. As per the RPS report, there was a nominal 9 MW of installed generating capacity utilising up to 2.1 MMscf/d of both free and associated gas at the end of 2007. Exactly how much of that is currently available or being utilised is not known. The operator has indicated during discussions that the Gas Cap could have up to 10 Bscf gas initially in place (GIIP) and that the gas utilisation could be less than 1 MMscfd currently.

Water injection has been applied in the field since 1976. **Figures 2.14** and **Figures 2.15** show the injection rate data compared to the production rate data for Gainsborough and Beckingham separately. Water injection data for these fields was only available as an annual average. Therefore, it is difficult to interpret correspondence and impact between the injection and the production data.

In Gainsborough, it seems that a typical voidage replacement strategy has been followed with injecting as much liquid as produced. However, over the recent past some over-injection is observed. In Beckingham, between 1987 and 2000, quite a lot of over-injection was done and apparently as a consequence water injection was totally shut down in 2004. It has been recently brought back on line in Beckingham anticipating some increase in oil rates (10 to 15 bopd). The full impact of this recent re-start of water injection is still not clear.

Decline Curve Analysis was applied to the recent production history to determine a range of forecasts. This has been done on a field level rather than on a reservoir, compartment or well level because of uncertainties in production allocation. These are presented in **Table 2.6** and **Figure 2.16** for the case of oil. For the 1P case, it is assumed that field performance will continue as is under the assumption that there will be no improvements. For the 2P and 3P cases, it is assumed that the recent reinstatement of water injection in Beckingham will boost the current field oil production rate slightly and hence these start at higher rates. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Gainsborough/Beckingham	0.308	0.738	1.129	0.200

In the RPS report Contingent Resources of 1.032 MMbbl were assigned to two side tracks to be drilled and to minor re-perforations and stimulations. These side track wells have not been drilled. The operator currently carries two tentative side tracks in late 2015 and assigns 0.2 MMbbl of resources (**Reference 10**). These have been recognised as Contingent Resources in this work.

For the case of gas, RPS reported that there was insufficient pressure data to perform any material balance and DCA was considered impractical due to the fact that the gas production rates were constrained by power generation requirements. They reported a range of reserves based on their evaluation of free gas initially in place and application of recovery factors.

Considering the fact that the field is currently not producing at the 2.1 MMscfd level (as anticipated by RPS profiles) because of gas export and electricity generation constraints, it is assumed that RPS figures could still be considered as Reserves if the market for gas utilisation is secured. Otherwise, they may be categorised as Contingent Resources. The table below lists RPS gas reserves reported in 2008. These would need to be revised by subtracting any gas that has been produced since then. In the absence of that information, no new numbers have been proposed. Profiles are depicted in **Table 2.24**.

Gross Gas Reserves (Bscf)	1P	2P	3P	Contingent Resources
Gainsborough / Beckingham	4.2	6.5	7.7	N/A

### 2.3.7 Glentworth

The Glentworth field was discovered in 1961. The field is a four-way dip closure and the producing reservoir is the Mexborough Rock. Following five appraisal wells, the field was shut down between 1965 and 1971. Upon recommencement of production horizontal sidetracks in 1992 and 1993 (Glentworth 1 and Glentworth 8) and new horizontal wells in 1996 and 1997 (Glentworth-10 and Glentworth-11z) yielded significant enhancements in production levels.

Currently, the field is producing typically at rates of 115 bopd with a water cut of around 40%. In total, Glentworth had produced 1.623 MMbbl of oil by the end of May 2011. Production history for the field is shown in **Figure 2.17**.

Decline Curve Analysis was applied to the recent production history to come up with a range of forecasts. These are presented in **Table 2.7** and **Figure 2.18**. Corresponding remaining reserves are as follows:



Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Glentworth	0.293	0.592	0.864	N/A

RPS had assigned Contingent Resources of 288.3 Mbbl to Glentworth based on a new well drilled in the field, most probably a step-out to the south west area. It is not known if this well was drilled or if it produced any oil. However, an increase in oil production rate from approximately 125 bopd in 2008 to over 150 bopd in 2009 can be seen on the history plot (Figure 2.19). Glentworth well GL11z was shut down in 2005 and came back on at end of 2008. It came back on at much higher rates (about 3 to 4 times what it was doing before it shut down). It is not clear that this is because of some well intervention, stimulation work or if the original well was sidetracked. If this is a sidetrack of the original well, then we conclude that this well has successfully produced from the allocated resources and no Contingent Resources remain. However, if the production increase was due to some remedial work on the existing well, then the Contingent Resources assigned to the side track could still exist.

Based on this information, Senergy has concluded that the increase is most likely related to a new well coming on line and that therefore the Contingent Resources have become part of Reserves and no longer exist. The related incremental Reserves are included in the DCA applied to recent production history.

### 2.3.8 Long Clawson

The Long Clawson field was discovered in 1986 and soon peaked at over 1,000 bopd. The field declined to rates of less than 250 bopd by 1992 and has been producing at quite stable rates since then.

The field consists of reservoirs in laterally variable delta-top sand bodies within the late Namurian Rough Rock, Longshaw Grit, Chatsworth Grit and Ashover Grit. The structure is a four-way dip closure, although the trapping mechanism probably combines structural and stratigraphic elements.

After four development wells and two re-drills, the field is currently producing at about 100 bopd with a water cut of over 20%. The production history plot is presented in **Figure 2.20**. No gas production data for the field was available.

In total, the field had produced 1.263 MMbbl by the end of May 2011.

DCA has been conducted for Long Clawson and production forecasts generated covering a range of 1P, 2P and 3P cases. These are presented in **Table 2.8** and **Figure 2.21**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Long Clawson	0.254	0.395	0.677	0.238

RPS assigned Contingent Resources of 0.2379 MMbbl to this field based on a new well proposed by the operator for 2008. No specific information on this well coming on production is available. Inspection of post 2007 production history (**Figure 2.22**) shows an increase in oil production rate from less than 120 bopd towards the end of 2007 and over 140 bopd towards the latter half of 2008. Inspection of the well-by-well data shows that this is mainly because of better performance by wells A4 and C1. No new wells come on during this time. Therefore we conclude that Contingent Resources identified in the RPS report still exist. The operator does not have any plans for a new well in this field.

### 2.3.9 Nettleham

The Nettleham field started production in 1984 from Westphalian sandstone. Wells NET-02, NET-04 and NET-06Z produced from the Basal Succession. Well NET-06Z was shut-in due to low oil production in 2005.

The field is currently producing intermittently at less than 5 bopd and with a water cut of over 95%. Production history for the field is shown in **Figure 2.23**.

In total, Nettleham had produced 1.574 MMbbl by the end of May 2011.

DCA has been conducted for Nettleham and production forecasts generated covering a range of 1P, 2P and 3P cases. For the 1P and 2P cases the recent (post 2007) production history has been considered. However, for the 3P case, a more optimistic forecast is considered assuming that the field will regain its pre-2008 deliverability levels (up to 30 bopd rates) due to removal of any production bottlenecks, shut wells that could come back on line, etc. These are presented in **Table 2.9** and **Figure 2.24**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Nettleham	0.002	0.003	0.143	N/A

No Contingent Resources have been reported for Nettleham.

### 2.3.10 Rempstone

The Rempstone field was discovered in 1991. It consists of a series of oil and gas reservoirs in a stacked sequence of laterally variable turbidite sandstones within the early Namurian Rempstone formation. Oil is produced from the H and C sandstones. The H sand has an oil leg with a crestal gas cap and a down dip oil water contact (OWC). There is considerable uncertainty in the fluid contacts determination and hence in the oil volumes in the H sand.

In 1995, the initial wells, Rempstone-1 and -2z, were redrilled as horizontal wells and renamed as Rempstone-3 and -4, respectively. Both wells were tested by two ninety day test periods. Rempstone 1 produced 6311 stb of oil and was completed as a C sand producer. Rempstone 2z tested 1,277 stb oil and 731 stb water during the second test but was never put on production due to mechanical problems shortly after the test.

Pressure information showed that the reservoir pressure was anomalously low in the second well (815 psia as against 920 psia in the Rempstone 1 well). The operator suggested a permeability barrier between the two wells to explain this.

Currently, Rempston-1 (or -3) produces at about 10 bopd. No water production data was available, but the RPS report suggested that the water cut was 80% in 2007. Therefore, Senergy concludes that the field is in its final stages of depletion. Production history is presented in **Figure 2.25**.

In total, Rempstone had produced 0.244 MMbbl of oil by the end of May 2011.

The 1P and 2P production profiles are based on the RPS 2P and 3P profiles considering the fact that the field has performed better than expected (RPS 1P profile discontinued in 1<sup>st</sup> half of 2010, current production levels are more consistent with RPS 2P projections). For 3P, an incremental factor was applied to the 2P profile to get a consistent range. The profiles are presented in **Table 2.10** and **Figure 2.26**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Rempstone	0.006	0.026	0.048	N/A

No Contingent Resources have been reported for Rempstone.

### 2.3.11 Scampton

SC-02 and SC-03 are the two producers in Scampton. The field started production in January 1996 and right away peaked at 190 bopd, but soon declined to 20 bopd. This led to field shut-down in April 1998. SC-02 came back on production in August 2001 for a period of three months before being shut-in again.

Since November 2004, SC-02 has been on production and currently produces in a slug regime with an average of around 12 bopd with water cut of 50 %. Historical production is shown in **Figure 2.27**.

Cumulative oil production to the end of June 2011 is 0.975 MMbbl.

For Scampton, the RPS forecast has been used from second half 2011. It has been checked for consistency with recent production decline trends. These are presented in **Table 2.11** and **Figure 2.28**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Scampton	0.014	0.051	0.125	N/A

No Contingent Resources have been reported for Scampton.

### 2.3.12 Scampton North

Scampton North started producing from February 1986. Nine wells have been drilled on the structure to date. The wells produce from several units in the Basal Succession: 1, 2b, 2c, 2d, 3b.

Peak production was achieved in February 1990 at approximately 800 bopd. As of November 2007, three wells (B02, C06 and C09) were on production. Currently the field is producing at a rate of approximately 125 bopd with a water cut between 20 to 30 %. Production history for the field is presented in **Figure 2.29**.

In total, the field had produced 1.929 MMbbl of oil by the end of June 2011.

DCA has been conducted for Scampton North and production forecasts generated covering a range of 1P, 2P and 3P cases. These are presented in **Table 2.12** and **Figure 2.30**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Scampton North	0.240	0.422	0.530	N/A

No Contingent Resources have been reported for Scampton North.

### 2.3.13 Stainton

The Stainton field was discovered in 1984 and has been producing from well ST-01 since then. This well tested dry oil from an early Westphalian sandstone, now referred to as Unit 2 of the Basal Succession. Two appraisal wells, ST-2 and ST-3, drilled on the structure were unsuccessful, neither encountering hydrocarbons and the field has continued as a single well development.

Peak production was approximately 120 bopd in July 1987. Currently the field is producing approximately 10 to 15 bopd intermittently with a water cut of about 40%. Field production history is shown in **Figure 2.31**.

Cumulative production to end of May 2011 is 0.205 MMbbl.

1P and 2P production profiles are based on RPS 2P and 3P profiles considering the fact that the field has performed better than expected (RPS 1P profile discontinued in 1<sup>st</sup> half of 2011, current production levels are more consistent with RPS 2P projections). For 3P, an incremental factor was applied to the 2P profile to get a consistent range. All the profiles continued to the rates used by RPS for cut-off. These are presented in **Table 2.13** and **Figure 2.32**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Stainton	0.009	0.054	0.112	N/A

No Contingent Resources have been reported for Stainton.

### 2.3.14 South Leverton

The South Leverton field was discovered in 1960 with production starting in the same year and peaking in 1961 at over 200 bopd.

The field has not produced since the start of this year. Before it went off production last year, it was producing 8 bopd from one producer. Water cut has remained low (less than 20%) historically and was just 6% at the time of last production. Production history for the field is shown in **Figure 2.33**.

Cumulative production to end May 2011 was recorded at 0.505 MMbbl.

1P and 2P production profiles are based on RPS 2P and 3P profiles considering the fact that the field performed better than expected (RPS 1P profile discontinued in 2nd half of 2009, current production levels are more consistent with RPS 2P projections). For 3P, an incremental factor was applied to 2P profile to get a consistent range. All the profiles continued to the rates used by RPS for cut-off. These are presented in **Table 2.14** and **Figure 2.34**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
South Leverton	0.011	0.044	0.075	N/A

No Contingent Resources have been reported for South Leverton.

### 2.3.15 Welton

The Welton field started production in August 1981. There have been over 60 wells drilled on the structure to date which produce from several formations; the Basal Succession consisting of several producing units, the Upper Succession consisting of the Tupton unit, and the Brinsley Abdy.

Peak production was achieved in December 1990 at approximately 3,700 bopd. Since 1997, oil production has been declining steadily. According to the RPS report, as of November 2007, 25 wells were on production and four infill sidetracks were underway. These four wells came on stream as B32, A34, B31 and B30 performing as follows (as per Mel Horgan email from 21/07/2011):

- Welton B32 initial production was 38 bopd declining to 13 bopd today
- Welton A34 initial production 185 bopd declining to 63 bopd
- Welton B31 initial production 124 bopd declining to 24 bopd
- Welton B30 initial production 7 bopd declining to zero

Currently, the field is producing approximately 600 bopd with a water cut of 75 per cent. Production history for the field is shown in **Figure 2.35**.

Cumulative production to end June 2011 was recorded at 17.777 MMbbl.

DCA has been conducted for Scampton North and production forecasts generated covering a range of 1P, 2P and 3P cases. These are presented in **Table 2.15** and **Figure 2.36**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Welton	2.339	3.284	4.699	0.200

RPS had assigned 0.818 MMbbl of Contingent Resources to the last two side tracks that were planned at the time of the RPS report. It was envisaged that these side tracks would produce initially between 150 to 200 bopd. However, neither of them came on with those expected rates. Therefore, Senergy concluded that the RPS assigned Contingent Resources no longer exist and that any related incremental Reserves are included in the Reserves ranges (1P to 3P) presented above.

The operator's Five Year Capital forecast in the dataroom suggests that potentially two side tracks are planned in the year 2014 (each coming at 50 bopd) and 0.2 MMbbl are assigned to them by the operator. These expected well productivity levels could be considered as high considering that the average well production rate in the field at that time would be between 10 to 20 bopd assuming all the currently producing wells continue to produce by that time. However, Senergy recognises these as Contingent Resources under the uncertain conditions of well production levels and any firm well plans.

## 2.4 Weald Basin Fields

The Weald Basin is located onshore in Southern England north of the Isle of Wight (**Figure 2.37**) and includes the fields of Albury, Avington, Bletchingley, Goodworth, Horndean, Palmers Wood, Storrington and Stockbridge.

The earliest phase of oil migration occurred towards the end of the Lower Cretaceous, the reservoirs are sealed by the Purbeck anhydrite, the Kimmeridge Clay and the Oxford Clay for the Portland Beds, Corallian and Great Oolite reservoirs respectively. The Great Oolite interval is by far the dominant reservoir in the Weald Basin. The reservoir quality increases from east to west due to facies variation and more favourable diagenetic history. The reservoir quality is highly variable due to different phases of cementation and the best reservoir characteristics occur in well-sorted, Oolitic and skeletal grainstones and relatively clean pack-stones with porosities up to 20 per cent or more. In addition to cementation, depositional environment is also important and generally the Jurassic reservoirs exhibit better reservoir quality at the margins of the Weald Basin. All of the Jurassic oils in the Weald Basin are light crudes with API gravities in the range of 35° to 42°.

All these fields are mature producing assets, most with extensive production history data available. Many of the fields have wells that are producing at 50 % water cut or more. There may be in-fill and sidetrack opportunities that still exist for some fields.

### 2.4.1 Albury

No production data was available for the Albury Gas Field. Therefore, this analysis has relied on the RPS report and anecdotal evidence gathered from the operator.

In February 1994, the AL-01 well tested at 500 Mscf/d at a FTHP of 841 psia with an AOFP of some 1.7 MMscf/d. The Albury Gas Field has produced from this single well since then to an onsite electricity generation facility at an average yearly rate of between 240 and 460 Mscf/d. As of 11<sup>th</sup> October 2007, Albury had produced 1.571 Bscf at an annual average rate of approximately 320 Mscf/d over 2007.

Initial pressure for the field was measured at 1,066 psia which depleted to 789 psia in October 2007. The gas is 97.5% Methane with small amounts of CO<sub>2</sub> and N<sub>2</sub> and has a gas gravity of 0.57. Very little water has been produced from the Albury field. As of last production, Flowing Wellhead Pressure (FWP) was ~ 600 psia with a delivery pressure to the generator of 29 psia.

RPS concluded a GIIP of 5.5 Bscf based on the historical P/Z plot (**Figure 2.38**). They suggested that the ultimate recoverable reserves would depend on the well abandonment pressure and the production rate rather than the licensing terms. It was reported that the gas production rate was constrained to 0.32 MMscf/d for years. Using an ultimate recovery factor of 70% with estimated well abandonment pressure at approximately 370 psia, the maximum recoverable gas volume was calculated to be 3.8 Bscf. (Ultimate recoverable reserves of approximately 2.2 Bscf).

Information from discussions with Operator suggests that the field was shut down in 2007 to do appraisal work for Gas storage in Albury. The appraisal well came back with disappointing results and gas storage plans were suspended. Historically, the gas produced from the field has been used in two gas engines to generate electricity. These are quite old and in dilapidated condition. Due to continuous operational problems with them, the field has not been put back on production since 2007. The operator is considering alternate options for gas export (like CNG, etc) but no firm plans are in place.

Technically all the reserves reported by RPS are still applicable which could be brought on stream with some capital investment in infrastructure and export routes. These are presented in **Table 2.16**. Corresponding remaining reserves are as follows:

Gross Gas Reserves (Bscf)	1P	2P	3P	Contingent Resources
Albury	0.7	2.2	2.7	N/A

## 2.4.2 Avington

Avington is located in the western part of the Weald Basin. The field has two main reservoir areas, the 'Hanging Wall' Area, located in the down-faulted side of the 'mid field' fault and the 'Foot Wall' Area, located on the up thrown side of the fault.

The Winchester-1 well drilled in 1959-60 found oil shows in the Cornbrash and Great Oolite reservoirs. The Avington-1 well drilled in 1987 in the northern 'Footwall' fault block encountered a 30.5 m oil column as indicated by log and core data. However, the well was not tested. The AV-2 well was drilled in 2003 into the southern 'Hanging Wall' anticline.

Avington-2z was drilled as a horizontal sidetrack from the AV-2 pilot hole. It initially flowed 38 API oil at rates of up to 700 bopd with no water production. However, on subsequent

extended well testing (between October 2003 and May 2005) using jet pumps, the dry oil zone was lost (oil rate down to 25 bopd) and very high water production was encountered which remained around 80 to 90% even after stimulation attempts.

Although disappointing, this early well performance after 6 months of 35 bopd and 90 % water cut is similar to some of the poorer producing wells in the Great Oolite reservoir in the Weald Basin.

The Avington-3 well drilled in 2006 and encountered high water saturations. A sidetrack from this well, AV-3z was drilled in 2007 and produced 600 bopd on extended well test (EWT).

Avington has been on production since August 2007. The field started off with oil rates of over 500 bopd as seen in the EWT wells. However, it soon dropped drastically with increase in water production. The field remained shut in for most of 2008 and was brought back on production in 2009 with oil rates of over 150 bopd. Since then the field has produced continuously but at much lower oil rates. Currently, it produces at around 50 bopd with over 80% water cut. Production history of the field is presented in **Figure 2.39**.

In total, Avington had produced 0.135 MMbbl of oil up to the end of May 2011.

RPS had assumed a phased approach for Avington development considering the good results seen on well tests. The Phase 1 production based on a three well development was attributed to 'Reserves' category while the Phase 2 production based on a seven well development was assigned to Contingent Resource.

It becomes evident from post 2007 field production performance that the good reservoir deliverability is because of the fracture network presence. This gives some oil flush production initially but imminently leads to considerable increase in water production which comes in very quickly through these fractures.

The operator's Capital Expenditure forecast suggests that a new well is planned to come on line in 3Q 2012. The operator has assigned 0.2 MMbbl to this well assuming an initial production rate of 150 bopd. Considering the historical performance of the field, this high rate may be difficult to achieve and maintain. IGas has indicated that based on existing information it is unlikely to drill this unplanned well.

A DCA was performed to generate a range (1P, 2P and 3P) production forecasts. These are presented in **Table 2.17** and **Figure 2.40**. Corresponding remaining reserves are as follows:

Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Avington Gross	0.025	0.037	0.413	5.800
Avington – Net (50%)	0.013	0.019	0.206	2.900

RPS based their Contingent Resources on the Phase 2 development strategy which included seven wells with higher than usual productivity levels. RPS also reported a range of STOIIP for Avington; 25.33 MMbbl (1P), 59.09 MMbbl (2P) and 110.31 MMbbl (3P). Based on this estimate, the field has produced less than 1% of even the 1P STOIIP. Therefore, there exists considerable upside in Avington for the right development strategy which can utilise the



fracture network to the benefit of oil production. In this context, RPS Contingent Resources could still hold valid. Although Senergy has not performed its own analysis, it has assumed the RPS volumetric estimates and the uncertainty that may be associated with it.

### 2.4.3 Bletchingley

Bletchingley is the newest of Star's fields to come on production. It started producing oil in July 2009. It started off with an oil rate of about 200 bopd and produced stably before peaking to over 300 bopd in September 2010. It has since then declined back to 200 bopd and currently produces around that level with very little water production.

Historically three wells were drilled in the Bletchingley field in the sixties. One of these tested 10 MMscf/d of gas. Star took operatorship of the field in the late 1990's to develop the gas resources for power generation. The appraisal well, Bletchingley 5, however struck oil in the Corellius Sandstone reservoir and tested at 250 bopd. Interestingly, Palmer's Wood is located 10 km north of Bletchingley and produces oil from the same reservoir. A second appraisal well produced only 30 bopd on test before it was hydraulically fractured to increase production rate to 150 bopd. The field has shown little decline in pressure. Production history for the field is presented in **Figure 2.41**.

By the end of June 2011, the field had produced a total oil of 0.160 MMbbl.

The current operator has plans to drill another two wells in the field in the next five years. Bletchingley-7 is to come on line from March 2012 at 200 bopd with 0.3 MMbbl associated reserves. Bletchingley-8 is planned to come on line from 3Q 2013, also with 200 bopd and associated reserves of 0.3 MMbbl. Furthermore, plans to test for gas during this appraisal / development in order to confirm original gas resources are also being considered. However, IGas has indicated that on the basis of current information, it will unlikely develop Bletchingley-7 and Bletchingley-8.

A DCA was performed to generate a (1P, 2P, 3P) range of forecasts. These are presented in **Table 2.18** and **Figure 2.42**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Bletchingley	0.129	0.582	1.035	0.3

Contingent Resources of 0.3 MMbbl were assigned to the second Bletchingley well planned for 2013. There is a possibility of upside potential in the area between Bletchingley and Palmers Wood which needs further investigation. Also, there is proven gas potential in the field which needs further appraisal and development, before this can be quantified.

### 2.4.4 Goodworth

The Goodworth field was discovered in 1987 but did not start production until the end of 1997 after drilling a horizontal side track from the discovery well. A new, longer well along the same path was drilled in 2000 after the original side track well built up internal restriction.

At start, the field peaked in excess of 100 bopd but currently produces at approximately 25 bopd with a water cut of 60%. The production history of the field is presented in **Figure 2.43**.

At the end of May 2011, Goodworth had produced a total of 0.187 MMbbl of oil.

For Goodworth, RPS forecast has been used from second half 2011. It has been checked for consistency with recent production decline trends. These are presented in **Table 2.19** and **Figure 2.44**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Goodworth	0.080	0.111	0.223	N/A

The Goodworth field is a Great Oolite reservoir consisting of an east-west trending horst which effectively divides the field into three main blocks. The first block is also subdivided into two sub blocks by a north-south fault. All the wells drilled so far on the structure have been re-entries of the same well bore and it is our understanding that none of the other fault blocks have been penetrated. There could be upside potential in these un-penetrated fault blocks which might be defined and quantified with more certainty resulting from more field appraisal.

#### 2.4.5 Horndean

The Horndean field is located on an east-west trend on the south-western flank of the Weald Basin. The field has been producing since November 1987 and a total of seven wells, including horizontal sidetracks have been drilled into the Great Oolite structure to date. Production peaked at 670 bopd in June 1993 after the drilling of well HNC-02 (as a horizontal sidetrack from the HNC-01 well).

Presently, the field produces approximately 160 bopd with a water cut of 30 %. Production history of the field is shown in **Figure 2.45**.

In total, Horndean had produced 2.212 MMbbl of oil by the end of June 2011.

DCA of the recent production history has been performed and production forecast range generated for 1P, 2P and 3P cases. These are presented in **Table 2.20** and **Figure 2.46**. Corresponding remaining reserves are as follows:

Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Horndean – Gross	0.445	0.657	0.911	N/A
Horndean – Net (89.125%)	0.397	0.586	0.812	N/A

No Contingent Resources have been assigned to Horndean.

#### 2.4.6 Palmers Wood

Discovered in 1983, the Palmers Wood field has had ten exploration, appraisal and injection wells drilled on the Corallian Sandstone structure to date. The field achieved peak production in 1991 at a rate of 1,400 bopd.

Presently, the field produces at rates between 30 to 60 bopd with a water cut of approximately 90 %. Well failure may be looming because of high water cuts. Production history for the field is shown in **Figure 2.47**.

Cumulative production to end June 2011 was recorded at 3.354 MMbbl.

For Palmers Wood, RPS forecast has been used from second half 2011. It has been checked for consistency with recent production decline trends. These are presented in **Table 2.21** and **Figure 2.48**. Corresponding remaining reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Palmers Wood	0.024	0.043	0.186	N/A

No Contingent Resources have been assigned to Palmers Wood.

## 2.4.7 Storrington

The Storrington field consists of an east-west trending tilted fault block. The reservoir is the Great Oolite formation that can be sub-divided from top down into the Upper Oolite, the Hoddington Member and the Middle and Lower Oolites. In addition there is minor net pay in the overlying Forest Marble / Cornbrash.

The field has been producing since May 1998. A peak production rate of 600 bopd declined to approximately 80 bopd by October 2001. Well ST-01 was acid stimulated during 2001 resulting in an increase of 400 bopd in production. Installation of multiphase pumps in January 2004 again increased production by 90 bopd. Since then, the field has returned to a steeper oil rate decline.

Currently, the field is producing between 30 to 60 bopd with a water cut of 88%. Production history for the field is shown in **Figure 2.49**.

In total, the field had produced 1.138 MMbbl by the end of June 2011.

DCA of the recent production history has been performed and production forecast range generated for 1P, 2P and 3P cases. Considering the established straight line nature of the decline trend, forecasts have been generated using only exponential decline applied to a range of initial production rates. These are presented in **Table 2.22** and **Figure 2.50**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Storrington	0.020	0.027	0.039	N/A

No Contingent Resources have been assigned to Storrington.

## 2.4.8 Stockbridge

Stockbridge field was discovered in 1984. A total of twenty two wells have been drilled on the structure to date, some have been re-drills of existing wells.

The field structure is a low relief anticline with the reservoir comprising of limestone of the Middle Jurassic Great Oolite Group. The reservoir depth is about 3,300 ft tvdss at the crest to 3,450 ft tvdss at the flanks. A long transition zone precludes exact location of an oil water contact. Bulk of the porosity is intragranular rather than intergranular and isolated within voids. Permeabilities are generally low due to small pore throat sizes and poor grain interconnectivity. Fractures in the vicinity of faults may enhance permeability. As a consequence of all of these, significant uncertainty in the field volume remains. RPS reported a STOIIP of 67 MMbbl based on the simulation model from 2007.

Due to the nature of the porosity and the high capillary pressures in the field much of the formation has high water saturation and wells tend to make water from the beginning of production. The exceptions are those wells that have depleted an extensive fracture system yielding high rates for a couple of years (e.g., STK-3z, STK-9). However, good production is soon followed by increased water cut reflecting ingress of oil from the matrix into a fracture system that has started to conduct water.

In order to boost production, various drilling techniques have been tried to minimise formation damage and maximise deliverability. These have mainly centred on targeted horizontal drilling and under-balanced. Results have varied depending on the degree of fracturing encountered and the degree of damage and stimulation that occurred at the well bore.

A water injection pilot scheme was started in 1998 by converting well STK-16 to a water injection well. It has continued as an injector since then. STK-18 was drilled in 2001 following indication of further reserves in the north of the field. In 2006 the well STK-20 was drilled and intersected an oil saturated fracture network. It produced ~ 80 Mstb of dry oil over 3 months before increasing to ~ 90% water cut.

Currently the field is producing approximately 600 bopd with a water cut of 90%. However, the current production rate represents a period of flush production that can be seen to be consistent with earlier such peaks on the historical production. These tend to fall quite fast and then follow a flatter decline consistent with the long term historical trend. Historical production from the field is presented in **Figure 2.51**.

By the end of May 2011, Stockbridge had produced a total of 8.080 MMbbl of oil.

DCA has been performed and production forecast range generated for 1P, 2P and 3P cases. In view of the recent flush production, forecasts have been generated using initial rates consistent with current production but very soon flattening out to follow the long term decline trend. These are presented in **Table 2.23** and **Figure 2.52**. Corresponding remaining Reserves are as follows:

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Stockbridge	1.206	1.732	2.412	N/A

RPS had assigned 0.767 MMbbl of Contingent Resources to drilling of new wells in the field. Two new wells were drilled after 2007; Stockbridge-22 and Stockbridge-23. Well 22 came in with 160 bopd declining to 50 bopd while well 23 came on with 177 bopd declining to 32 bopd. Assuming that all of RPS Contingent Resources have been based on these wells, Senergy assumes that these have become part of field Reserves and are covered by the DCA performed on production history. No further information is available to assign any new Contingent Resources.

## 3 Star Assets - Operations and Costs

### 3.1 Introduction

Although the Star Assets have a long history of operations, little useful data was available in the dataroom to allow Senergy to form an opinion on this basis. Meetings with key technical Star personnel and the site visits have provided most of the insights. Therefore, the basis for Senergy's Operations review is based on a combination of factual, first hand evidence, anecdotal evidence and data (predominantly cost data) provided in the dataroom.

### 3.2 Operations Overview

Star has interests in 25 UK onshore licences in the East Midlands and the Weald Basin and is the appointed operator in 23 of the 25 licence areas. In total, Star occupies or owns 105 sites with an inventory of 247 wells (of which between 85 are currently still in operation). It is understood that the two non-operated licences are exploration only. The operating companies in East Midlands and the Weald Basin are responsible for the day-to-day operations of the fields and are supported by central services and development teams.

#### 3.2.1 East Midlands

The East Midlands has two primary production area centres: Welton and Gainsborough / Beckingham. The Welton area production wells are beam pump type. The Welton area fields comprise

- Welton A/B/C;
- Nettleham;
- Scampton (N&S);
- Stainton; and
- Cold Hanworth

The Welton Gathering Centre ("WGC") as the hub reception and process facility. The produced oil, gas and water are separated at the WGC. Welton A/B/C and Nettleham flow to WGC via pipelines. All other fields have oil/water storage and tanker pick-up.

At WGC product oil is exported to Conoco Immingham via road tanker, gas is used for power generation and produced water is pumped for reinjection at Welton A. WGC is manned 24 hours/day. All other Welton area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

The WGC has been designed for much higher throughputs than current use (6,000 bopd versus current 950 bopd) and previously included many more process unit operations including gas sweetening / amine units, fuel gas compression, GT power generation, etc. The WGC site has a large plot area. There are many site process unit operations that are now not in service or isolated, though not disinvested, including a former rail export siding.

The Gainsborough / Beckingham facility manages its own production as well as the production from seven other oilfields:

- Corringham,
- Glentworth,
- East Glentworth,
- Rempstone,
- Long Clawson,
- South Leverton
- Bothamsall

Gainsborough / Beckingham wells flow to the Gainsborough-5 gathering / processing hub via pipelines. All other fields have oil / water storage and tanker pick-up. The Gainsborough-5 processing facility separates oil, gas and water. Oil is exported to Conoco Immingham via road tanker, gas is piped to Gainsborough-1 for power generation and produced water is pumped for reinjection. All Gainsborough / Beckingham area oil production wells are beam pump type.

Gainsborough-5 is manned 24 hours per day, Gainsborough-1 is manned during daytime hours and has 24 hour security and Long Clawson A is manned during daytime. All other Gainsborough area sites are normally unmanned, but roving operators visit all sites daily during daytime hours.

### 3.2.2 Weald Basin

The Southern Sites cover a broad area. Stockbridge, Palmers Wood, Bletchingly, Storrington and Horndean are manned sites with daytime operators. The two sites at Palmers Wood are covered by one man as are the three sites at Horndean. The main Stockbridge site, Larkwhistle Arm is manned during the day and operators from this site also service the Hill Farm, Folly Farm, Goodworth and Avington sites. The Holybourne terminal is manned.

The Albury gas field is presently suspended following drilling of a new well for potential gas storage use. It is planned to reinstall equipment for gas production and power generation for export.

The Humbly Grove and Herriard sites have not been assessed.

Oil is exported by tanker from all sites except the Palmers Wood Coney Hill site which exports to the Palmers Wood Rooks Nest site by pipeline. There are plans to abandon this pipeline. There is also a pipeline into the Holybourne terminal from Humbly Grove. Produced water is either reinjected on site or trucked to another site for reinjection. Power is imported or generated by an on-site diesel generator.

Oil is either exported by road tanker to the BP operated Hamble terminal on the Solent or by road tanker to the Star operated Holybourne storage facility for onward transport by rail (5,000 stb loads) to the Esso Fawley refinery, which is generally once per week. Generally oil from Stockbridge is exported to Hamble and oil from the other fields is exported to Holybourne / Fawley. However, there is flexibility of operation and any production can be exported via either route.

The production department has two work over rigs, four hot water flush rigs, one hot oil flush rig, and one flushby unit for pulling beam pump well rods. Demand for the rigs is high.

### 3.2.3 Capex

According to operator reports, Capex spend is generally being made to try to maintain the existing production profile as high as reasonably possible. This includes items such as well stimulation, well sidetracks and upgrading or replacement of existing facilities to improve reliability and to reduce Opex.

Site visits have shown that, in general terms, the equipment is being maintained in reasonable condition. However, equipment at some fields is quite dated and may lack the control and safety systems that would currently be installed. Although the age and specification of the equipment is mitigated to a certain extent by the generally low operating pressures, there is likely to be some continued requirement for Capex for replacement and upgrading. Some progressive upgrades have already been undertaken at the Welton satellite sites for tankage, bunding and remote monitoring systems. Similar upgrades are taking place at the older southern sites, particularly Stockbridge.

The Bletchingly facilities are still set up as a temporary well test system. It is planned to convert this site to a permanent production facility which will require concrete bunds for the existing process facilities and oil storage.

Details of recent historical capital expenditure can be used as an indication of the likely expenditure going forward. Whereas historically maintenance Capex has been relatively low, in 2011 a step increase was seen, which is thought to be related to recent investments in security, remote monitoring equipment, renewing of IT systems and upgrading facilities. Although some further similar expenditure is expected, it is also assumed that expenditure will then return to historical low levels. Therefore, the average Capex for 2010 and 2011 as reported in the accounts has been determined. From the reported Capex, only those amounts related to maintenance, transportation / fleet and buildings / security related items have been included to determine future Capex forecast. IT related Capex and "unclassified" Capex has not been included. Capex accruals related to abandonment costs have also not been included as these costs are dealt with elsewhere. Development Capex has historically been related to new wells and side tracks, plus the related surface infrastructure investments. The operator has provided its Development Capex budget (**Reference 10**). Of this budget, only the Bletchingly-7 and Avington wells are firm according to the operator, although the most recent Avington TCM report appears less certain about this well. Moreover, IGas has indicated that given current lack of information, it is unlikely to commit to any new wells. As such, Senergy has not included any Development Capex into its forecasts. Senergy has also excluded any petroleum production that is dependent on new wells or sidetracks coming on stream from its forecasts.

Capex is calculated for 2011 and assumed to remain constant, apart from inflation by 2.5% per annum, starting in 2013. Estimated Capex for 2012 totals £1.57MM and is allocated on a field-by-field basis as per **Table 3.1**.

### 3.2.4 Opex and SG&A

Site visits indicated that Star is focused on managing operations at relatively low levels of operating expenditure (Opex). The very experienced staff allow the facilities to be operated with low levels of manning and support.



For oil export, the transportation costs are all apportioned back to each field. The Holybourne terminal operates as a cost centre and charges an internal tariff for oil unloading, storage and onward shipment.

Opex costs have been allocated to individual fields as per **Table 3.2**. Variable costs have been allocated by the in-year field production and fixed costs have been allocated based on the cost allocation for 2010.

Opex is calculated for 2011 and inflated, starting from 2013, by 2.5% per annum. Opex in 2012 totals £13.4 MM and this amount is expected to reduce in the next years, due to cost savings and fields being shut in. Opex estimates for the first five years and allocated on a field-by-field basis are provided in **Table 3.2**.

Selling, General and Administrative costs (SG&A) have been reviewed and Senergy has concluded that, following a successful transaction, a large part of these costs will not be recurring. At the same time, certain SG&A costs related to a service agreement between IGas and Star Gas Storage will transfer into IGas and increase SG&A overall (this service agreement will also result in a revenue stream to IGas). Senergy has reviewed the SG&A reduction projections proposed by IGas and has concluded that these are achievable.

SG&A for 2012 is expected to be £6.4MM. SG&A costs are inflated by 2.5 % per annum. Cost reductions are phasing in over time. Costs are allocated to individual fields by their pro rata production for the year. The SG&A figures for the first five years are provided in **Table 3.3**.

### 3.2.5 Abandonment Costs

Star has issued an abandonment cost estimate for all sites in February 2011. Their share of the total estimated abandonment cost (for transferred assets only) at 2011 prices is £20.76 MM. This estimate is built up as follows:

- £11.80 MM - well abandonment, based on in-house experience
- £ 1.91 MM - site clearance estimated by insurance broker Rushton International
- £ 6.33 MM - site restoration estimated by Gazelle Land and Safety Services
- £ 0.69 MM - pipelines
- £ 0.21 MM - licence relinquishment
- abandonment cost sharing on a pro rata basis for those fields where Star owns less than 100% of equity

The estimated abandonment costs were considered to be relatively lean with no provision for contingency. The costs are based on Star personnel carrying out much of the work and a favourable price for contract services and waste disposal. For the purposes of this report, the cost estimations provided by Star have been increased by a contingency of 10% to allow for escalation of rates for facilities removal and higher costs in the south and additional disposal costs. This assumes that the operator can in future still carry out most of the abandonment activities in-house, or at similar rates.

Senergy has been told that there are some outstanding abandonment obligations, but the operator has indicated that no strict rules have been applied by the regulator with regards to the timing of implementation of well and facilities abandonment and clean-up. In the economic model IGas has assumed that abandonment will happen three years after the

economic cut-off date of the field has been reached. Senergy believes that this is a reasonable assumption.

Abandonment costs per field (2011 prices) have been provided in **Table 3.4**. The economic cut-off dates for all fields, as calculated in the economic model (see Section 5) have been provided in **Table 3.5**.

## 4 Technical Review – IGas UK Gas Assets

### 4.1 Introduction

The IGas Coal Bed Methane (“CBM”) and shale gas assets are in ten onshore and three offshore licences (PEDL’s) located in Cheshire, Flintshire, Staffordshire and Yorkshire counties (see **Table 1.2** and **Figure 1.3**).

The licences vary in size from 18 to 296 km<sup>2</sup> or 4,450 to 73,181 acres. Total area under license is 1,455 km<sup>2</sup>. There are outstanding licence obligations on PEDL 184, 190, 193 and 110/19 (four wells in total). IGas has a 100% working interest in all licences. Coal mining has occurred in or adjacent to many of the licences including areas of the Lancashire, Yorkshire and North Staffordshire coal fields. Several of the licensed blocks are adjacent to each other which is beneficial for analysis and development. The licences can be grouped as follows:

- Swallowcroft PEDL’s 40-1, 56-1, 78-1, 78-2, 115-1 and 115-2 are located in the south
- Four Oaks PEDL 145, Foxhill PEDL 116, North Dee PEDL’s 184 and 190, and Parkside PEDL 193 are located along the rivers Dee, Mersey and estuaries.
- Point Ayr PEDLs 107, 110/18, 19 and 23 are located primarily offshore in Liverpool Bay

The assets were reviewed for CBM potential by DeGolyer and MacNaughton in December 2008 and updated (for changed ownership interests only) in January 2010. This report established statistically aggregated Gross Contingent Resources of:

- 1.2 Trillion Cubic Feet 1C
- 1.7 Trillion Cubic Feet 2C
- 2.5 Trillion Cubic Feet 3C

The CBM assets were also reviewed by Equipoise Solutions Ltd (now ERC-Equipoise) in several reports most recently in a CPR dated July 2010. These reports calculate low, mid and high views of GIIP. Equipoise also assembled and reviewed the available shale gas data in July 2010.

Existing reports are based mostly on the voluminous coal core data available from the mining industry. The licensed area includes portions of the Cheshire and Lancashire coal fields. The National Coal Board / Coal Authority database contains information for boreholes, shaft records and mine workings. In the case of seams important to the mining industry some maps of thickness, ash content, thermal content, Vitrinite reflectance and British Coal Code are available. Most of the seams have been named and the information is available on a seam by seam basis. Modern petroleum core and log data from several wells was acquired in the period 2008 to 2010. Some licences have more information than others but in general the coals’ measures are adequately to well defined.

The coals are of the Westphalian Coal Measures which are Upper Carboniferous in age. The coals were formed in shallow water estuarine environment and inter-bedded with sandstones, siltstones and shale. The coals are high volatile bituminous A-B. They vary from 200 to 700 on the British Coal Rank Code which generally equates to Vitrinite reflectance of 0.6% to 2.1%. Coal depth varies from outcrop to greater than 3,000 m. The coals are gassy with gas contents of 2 to 12 cubic meters per tonne (64 to 385 standard cubic feet per ton).

Individual coal seam thickness varies from less than 1 to 5 m. Most seams are in the 1 to 3 m range. The main seams are fairly continuous over large areas while others appear to aggregate, split, thin or raft out more locally. The overall coal package of 8 to 15 or more seams is continuous over large areas and the overall coal thickness generally varies less than individual seam thicknesses.

Senenergy has analysed the data provided by IGas to estimate resources on a field level basis. In conducting our analysis we reviewed all available data for accuracy and completeness including:

- Existing reports including IGas development plans;
- Coal seam thickness maps based on mine data;
- Coal quality, gas content, density, ash and moisture content from mine and modern petroleum core data;
- Log data from modern petroleum wells;
- Seam correlation data across licences;
- Mine era maps of iso-rank, Vitrinite reflectance, thermal capacity;
- Extended production history from the Doe Green pilot.

The information was reviewed using experiences from successful CBM development projects in North America and Australia. The Senenergy analysis also includes suggestions to assist in working towards the development of Possible, Probable and eventually Proved Reserves. Senenergy did not carry out independent interpretation of each seam thickness since this information is well documented already

## 4.2 Summary

The previous reports by DeGolyer & MacNaughton and Equipoise were well prepared consistent with industry standards and properly reflect the range of potential GIIP.

The reports benefitted from the substantial coal core data from mining on several of the PEDL's. Other PEDL's had less core data and coal volume and gas content were estimated based on surface geology, seismic and stratigraphy correlations to other PEDL's. The mining core data provides very precise information on coal seam thickness and depth. But the mining data does not yield similar quality data on the density, ash, moisture and gas content of the seams which are also important in estimating GIIP. Previous reports recognised that the gas content data varied widely and used reasonable methods in establishing low and high views. This partly accounts for the wide variation in GIIP estimates. The reports used average values for density, ash content and moisture content across all coals. Gas content was varied with depth according to a chosen isotherm. When applied to all seams in all areas this method provides a good estimate of overall resource.

The coal quality and gas saturation varies by seam by area as indicated by the core, log and mining data. As a result, using end values for coal thickness and / or gas content can result in significant over or under estimation of GIIP on a seam or PEDL basis. In Senenergy's opinion some of the GIIP estimates represented an extreme view. Senenergy used existing GIIP estimates combined with development and recovery efficiencies to estimate Contingent Resources on a field level basis. Senenergy's estimate for total gross Contingent Resources is depicted in the table below.

Contingent Resources Net to IGas			
Stochastic Aggregate of all UK Fields	1C	2C	3C
<b>Total Gas (Bscf)</b>	1,400	1,811	2,389

This concurs with the reported DeGoyler & MacNaughton estimates for Contingent Resources<sup>7</sup>.

The IGas CBM development should benefit from the modern petroleum core / log data and the production data available, as well as from knowledge gained from drilling and operating the Doe Green wells over the last years.

The optimal development zones and drilling and completion techniques for IGas CBM assets will still take time to fully develop. Further incorporation of the modern petroleum and mining data will help with project definition and development. Enhanced project definition and production projections based on the Doe Green results could result in sufficient confidence levels necessary for resources classification as Possible or Probable Reserves. Multiple well pilot results will determine Proved (1P) Reserves.

### Shale gas

The information reviewed indicates that the Holywell shale is present on some of the PEDL's. The data is only from a few wells and outcrops. The limited data indicate Vitrinite reflectance measurements of 0.6% to 1.2% however given there was insufficient data to determine the free gas/adsorbed gas values and the relationship of those to net reservoir thickness, a purely statistical approach using GIIP/sq mile was used by Equipoise in their GIIP calculations. Since no shale gas data has been obtained since the Equipoise review no further update to the Equipoise analysis has been performed.

## 4.3 Gas in Place Analysis

The gas in coal seams is held by the pure coal fraction within the seam. All coal seams also contain ash and moisture which must be accounted for when determining gas content. The process of estimating GIIP for coals is based on estimating the coal volume, density and gas content.

GIIP = Area x Height x Coal Density x Gas Content  
 GIIP in standard cubic meters  
 Productive Area in square meters  
 Net Coal Height in meters  
 Coal Density in tonne / cubic meter  
 Gas Content in cubic meter / tonne

<sup>7</sup> DeGoyler's and Equipoise's analysis also included PEDL 92-1, which is excluded in this report.

The calculation can be on an as received basis ("ARB"), or dry ash free basis ("DAF") depending on the data available.

- ARB analysis uses in-situ gas content and clean coal density which excludes ash and moisture. This analysis can be done with mining data.
- DAF analysis uses clean coal gas contents and either clean coal densities or in-situ coal seam density adjusted for ash and moisture fraction. This analysis requires modern petroleum data.

Although the equation is straight forward, difficulty often arises when trying to determine average or per seam values across multiple seams and areas. Changes in coal macerals and maturity result in variations in the amount of gas the pure fraction coal can hold. Changes in ash and moisture contents within the coal result in variations in the amount of gas the seam can hold. Some coals contain less gas than they can hold as a result of being immature or leak-off to other sediments or the surface. Coals that hold less gas than they can are under saturated.

Senergy analysed the GIIP methodologies of previous reports. The reports were well prepared using sound methodologies and standard industry practices. GIIP's were calculated on a per seam basis for each of the PEDLs or PEDL sub-area. Although seam and PEDL GIIP values vary between the reports the overall GIIP range is similar. Different approaches were used as follows:

- **Area:** Individual licences were reviewed and productive area determined based on coal extent and a depth cut-off. For many areas the coal extent and depth were well defined. In other areas coal extent and depth were based on extrapolation of adjacent data, surface geology and seismic. Depth cut-offs in the 1,500 m to 2,000 m were used. The cut-off seems deep but most of the coal volume is shallower.
- **Height:** As a result of the extensive mining data the coal thickness is well defined on most licences. Low values for coal thickness were based on lowest measured value or all coals greater than three meters thick. Mid values were based on average measured or all coals greater than one meter thick. High values were based on highest measured or all coals of any thickness including unnamed seams.
- **Density:** Clean coal density of 1.28 tonne/cubic meter was used for all coals. Most coal samples indicate low ash (3 to 5%) and low moisture contents (2 to 4%). However other coals have substantially higher ash and moisture contents. Actual in-situ coal seam densities from modern petroleum logs vary from about 1.35 to 1.65 tonne/cubic meter.
- **Gas Content:** As-received calculations plotted available mining data desorption gas content verse depth for all coal seams to establish an isotherm. The mid estimated was based on an isotherm with 50% above and below the line. The low and high estimates had 90 and 10% of the points above line respectively. Dry as free calculations used a desorption isotherm, possibly from the Willoughby well. The high estimate used fully saturated coals. The mid and low estimate assumed some degree of under saturation, possibly 10 and 20%. Mining and petroleum data indicate that the gas contents vary widely and as a result have the largest impact on GIIP uncertainty.

Variation in GIIP estimates from previous reports on individual licences or seams were noted. Variations in area and height were due to:

- Use of seismic to extend productive area where there was no core data.
- Including coal located in offshore waters.
- Extrapolation of coal thickness to areas of PEDLs or across PEDLs where there was little or no data.

Variations due to gas content had a larger impact on GIIP than variations in area and thickness. The wide variation in gas content estimates were due to the wide scatter in mine core hole data and few petroleum core holes. **Figures 4.1, 4.2 and 4.3** extracted from the Equipoise February 2010 report show the variation for the Swallowcroft, Parkside and Four Oaks areas. The mine data does not provide information on the gas holding capacity or saturation. After reviewing all available data, Senergy's view is that the wide scatter in reported gas contents is a result of changes in coal quality, maturity level, ash and moisture content, density and saturation levels. The previous reports used prudent methodology to incorporate the wide range of gas contents. Overall this provides a good estimation of the GIIP range of IGas assets. However, GIIP estimates for individual seams and PEDL's may not be as accurate due to the application of average values across all seams for density, ash content, moisture content, gas content isotherm and gas saturation.

**Table 4.1** shows the coal mining, modern petroleum wells, IGas Field development Plans and development notes for each of the licences. In general, the coal depth and thickness are well to reasonably well defined in the Swallowcroft and Four Oaks / North Dee / Parkside areas. The coals are not as well defined in the Point Ayr area.

## 4.4 Resource Estimation Methodology and Results

Senergy calculated resources using probabilistic inputs for the following:

1. Gas Initially In Place
2. Development Factor
3. Recovery Factor

Review of previous reported GIIP estimates shows outliers on the low and high estimates on some of the PEDL's. This appears to be the result of the combination of assumptions made in developing the low and high views for height, gas concentration and / or coal extent. Analysis of the supporting data, including the modern petroleum data indicates that the lowest or highest GIIP estimates on some PEDL's may greatly understate or overstate the actual GIIP. The low, mid and high GIIP estimates from the 2010 DeGolyer & MacNaughton and Equipoise reports were used as a basis to determine the  $P_{90}$ ,  $P_{50}$  and  $P_{10}$  inputs shown in **Table 4.2**.

In most CBM projects only a portion of the project area can be economically developed. Production rates have a big impact but other factors include:

1. Licence size and shape;
2. Surface features such as towns, water ways, sensitive areas and drillable locations impact drainage and facility development;
3. Geological outcrops, intrusions, faults, coal depth, number of seams, gross interval and coal continuity.

Individual PEDLs were reviewed and a development factor was estimated for each area based on the above criteria. The development factors ranged from 65% to 95% as shown in **Table 4.3**.

Recovery factors for CBM projects vary widely and have the largest impact on contingent resource calculations. Individual wells can recover in excess of 60% of the GIIP. Well developed projects in good coals can recover 30 to 40% of GIIP. Overall, successful projects may have a recovery of 20 to 30% of the GIIP. Much lower recoveries have been observed in pilots. Recovery factors vary with permeability, well spacing, number of seams that can be completed, well / reservoir pressure, completion effectiveness and field operations.

Individual PEDLs were reviewed and recovery was estimated for each area. The recovery factors ranged from 18 to 32% as shown in **Table 4.4**.

The above results have been used as inputs to a Monte Carlo stochastic simulation and the results are given in **Table 1.4** on a gross (100%) basis. Contingent Resources net to IGas are the same as the gross volumes, because IGas owns 100% of all its licences.

## 4.5 Development Plan Analysis and Resources Classification

IGas' CBM operations have a number of positive attributes that enhance development viability including:

1. The coal age, rank, quality, depth, thickness and gas contents are similar to economic projects in the Appalachian region of North America. In general the coals have high gas contents ranging from 5 to 15 cubic meters per tonne (160 to 480 standard cubic feet per ton).
2. The licensed area (434,000 acres) and estimated resource (1.0 to 2.5 Tscf) are sufficient target size given that only a portion will become proved reserves.
3. Extensive coal mining data provides for detailed seam mapping on some licences. The overall coal package is relatively continuous over the mapped area. Total coal thickness is in the range of 10 to 30 m at reasonable CBM development depths of 500 to 1,400 m.
4. The produced gas contains about 1% ethane plus propane and less than 0.1% carbon dioxide and nitrogen, resulting in good calorific value and little treatment required.
5. In the event of gas sales the prevailing market price is relatively high. Estimates range from 45 to 65 pence per therm, with a base price set at 55 pence per therm.
6. The distance to consumers or to the UK gas transportation infrastructure is relatively modest.

Activities over the past several years that have enhanced the development viability of IGas' CBM resources include:

1. Modern petroleum core and log data in the Willoughbridge, Foxhill Farm, Mill Farm, Mostyn Quay and Doe Green wells.
2. Seismic line acquisition and interpretation which has added information on coal extent on some licences.
3. Doe Green horizontal wells established drilling. The knowledge gained can be used to improve future wells.
4. Long term production of the Doe Green wells has built operational experience and valuable production data.



5. Establishing gas production, gas use and electric generation / sales are noteworthy events and form the path to possible Reserves classification.
6. The approved Doe Green Field Development Plan in PEDL 145, Four Oaks area.
7. Approved Potteries field designation in portions of PEDL's 40, 56 and 78 in the Swallowcroft area.
8. The pending Field Development Plan for Culcheth PEDL 193 Parkside area.
9. The coal and adjacent sandstones appear to have limited volumes of movable water. This can result in immediate gas production and lower operating costs.
10. Negotiated surface use agreements with Peel and others provide drilling access that can be used to develop significant acreage.

A number of issues remain to be resolved including:

1. Injection Fall-Off testing and Doe Green well production indicate low permeability, perhaps less than 1mD. This is in agreement with previous testing on UK coals.
2. Although the coal package thickness is relatively continuous individual seams thickness and quality vary. Individual seams thick / thin, split / aggregate, degrade and may develop in rafts. Some areas and / or seams are under saturated based on the gas the coal can hold. This may be due the nature of the coal.
3. Obtaining surface development agreements for locating wells has been a long process. Lack of well locations can inhibit pilot and ultimate field development.
4. The optimal drilling and completion technique for this set of coals has not yet been established. This process often involves trying a number of techniques. Most CBM projects are developed using hydraulic fracturing to enhance well production. Multiple stage hydraulic fracturing can effectively access more of the productive zone in vertical and horizontal wells. However, the use of hydraulic fracturing might be a contentious issue in the UK.
5. The apparent UK drilling and completion costs as indicated by the Doe Green wells are relatively high. Achieving operational cost efficiencies will be important for future wells. This will require equipment, services and approved processes that are currently not yet in widespread commercial use in the UK.
6. Produced water handling and disposition methods have not yet been determined;
7. Some coal thickness and extent in some licences is based on extrapolation of the well data from nearby licences, increasing uncertainty.

Reserves classification is established based on the project economic viability. This is based on the combined confidence in the GIIP estimates, drilling and completion viability and cost, production projection basis, operating plan and cost, the viability establishing gas sales and the estimated gas sales price. Based on the above analysis and the status of the CBM projects and FDPs, Senergy has classified the resources as Contingent Resources.

In our view, in order to move resource from Contingent Resources into Reserves classification, IGas can undertake the following actions:

1. Utilise production from the Doe Green wells to establish a history match simulation model based on existing production. This model could then be used to estimate production of laterals with longer effective lengths.
2. Enhance target definition by further incorporating the modern petroleum well and mining era data. Additional information specific to the target seams will help in evaluating possible recovery. It will also help high grade areas and improve the drilling and completion techniques.
3. Design pilot locations for groups of eight to ten wells. Single coal wells have a limited ability to lower reservoir pressure away from the well bore enough to maximise gas

desorption rates. Groups of wells are needed to maximize production response. Groups of well also help reduce costs of services and surface facility operations.

4. Show by means of initial development or extended pilot that IGas can deliver gas to the market economically, or that there is (under current market conditions and with currently available technology) a strong case for economic production at scale.

The Culcheth Field Development Plan that is currently being prepared by IGas incorporates a number of the actions listed above and provides a basis to estimated gas volumes that could be moved into Possible, Probable or Proved Reserves over the next several years. The FDP is based on:

- A detailed geologic description;
- Identified drill sites that can accommodate multiple wells on the Peel properties;
- Vertical mother bore with four 1,000 to 2,000 m horizontal laterals;
- Seven hub sites capable of 6 to 8 mother bore wells. Each hub site would be capable of draining 6 km<sup>2</sup>;
- Potential production rates of 80 to 300 Mscf per day per lateral;
- Hub system for gas and water gathering and disposition;
- Use of production and electrical generation systems similar to those in operation at the Doe Green pilot;
- Initial gas production to drive electrical generation for sales into the grid;
- Potential cumulative production of 0.1 to 1.2 Bscf per lateral;

The adjacent Doe Green FDP also has Peel acreage which may be able to be used for another five to seven hub sites. It is possible that 50 to 100 wells could be drilled between the two fields.

Given the status of the CBM gas development projects, no detailed cost and economics review has been undertaken as part of this report.

## 5 Economics

### 5.1 Methodology

The Star Asset Reserves have been evaluated in terms of un-risked Net Present Values (NPVs). The economic evaluation has been performed using a combined economic/financial model developed by IGas. The economic calculations in this model have been reviewed by Senergy and any suggested modifications have been agreed and implemented.

The model uses standard discounted cashflow techniques to derive after-tax NPVs for each field. The model is monthly based for 2011, 2012 and 2013, thereafter all calculations are annual. Future cashflows have been calculated by deducting cash outflows from cash inflows. Cash outflows include exploration and appraisal costs, capital costs, operating costs, SG&A costs, royalties and taxes, but exclude financing costs. Cash inflows include revenues from the sale of hydrocarbons.

Revenues are based on the field oil production. Produced gas is assumed to be used for power generation for internal use and is therefore not treated as revenue, but as a reduction of Opex. Next to this additional revenues are generated from services provided to the Star gas storage business and from oil and water handling, which is done centrally on behalf of and charged to the producing fields. The net effect of the handling fees is zero for all fields, except for those where Star has JV partners. For those fields, there is a net additional revenue stream to Star. Lastly, this CPR has assumed that the Transaction between IGas and Star includes a processing arrangement through which IGas handles petroleum production from Humbley Grove and Herriard (although both assets remain with Star) for a certain agreed fee<sup>8</sup>. This fee is included as additional revenue in our calculations.

Economic cut-offs have been determined as occurring once operating cashflows become negative. NPVs are calculated for an effective date of 1st July 2011, and use end of period discounting. A discount rate of 10 per cent has been used.

Prices and costs have been adjusted for inflation. All figures are net to IGas, unless specifically indicated otherwise.

### 5.2 Cost assumptions

The cost inputs applying to the development of the Star assets have been deliberated in Section 3. Upon economic cut-off of the Star assets, actual decommissioning is deferred for three years. All fields are assumed to be decommissioned by 2045 at the latest.

An inflation rate of 2.5% is applied to operating costs, SG&A costs and capital costs.

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<sup>8</sup> please note that the resources on these fields are not included under the IGas Reserves or Contingent Resources

### 5.3 Product prices

The oil produced is currently sold into the UK market either to BP, Exxon or Conoco through long term contracts<sup>9</sup>. The product price is defined in these contracts as a discount on prevailing Brent wholesale price. For a portion of the production, prices are hedged in the sales contracts. The sales contracts are up for renewal. The discounts to Brent oil price as they are currently applied by field are given in **Table 5.1**.

For the base case the ICE Brent forward price curve has been used for the period up to 31<sup>st</sup> December 2015 and a \$85/bbl Brent Oil Price thereafter, inflated at 2.5 per cent per annum and starting in 2013. A flat US Dollar to GB Pound exchange rate factor of 1.58 \$/£ has been used.

Star can sell its produced gas in the market, but is currently using it to generate power. The power is mostly used internally, with some excess power being sold into the local UK market.

### 5.4 Fiscal regime

NPVs have been calculated in accordance with the current UK fiscal terms as contained in the 2011 Finance Act.

Oil and gas extraction (ring fence) activities were subject to 30% corporation tax plus 32% supplementary tax. Any non-ring fenced profits (ie power generation etc.) were taxed at 26%, in 2011, and then 25% in 2012 and thereafter. It was assumed that a small fields allowance (SFA) of £75MM was available for each new IGas CBM gas site, which resulted in no supplementary tax being payable for the assumed gas prices. No SFAs were assumed for Star's assets as they were all producing prior to the introduction of SFA.

Operating costs are assumed to be expensed as incurred, with capital expenditure subject to a 100% first year writing down allowance, i.e. effectively expensed.

UK corporation tax and supplementary tax was calculated on a consolidated basis for both the East Midland and Weald Basin fields and then allocated to individual fields based on their share of total production for the year in question. Brought forward losses at 31<sup>st</sup> March 2011 for the Weald Basin companies were understood to be £24.3MM and £23.1MM for corporation tax and supplementary tax respectively. In addition there are ring fence Tax Written Down Values of £0.9MM in Star Energy Oil and Gas Limited, £1.8MM in Star Energy Weald Basin Limited and a non-ring fence Tax Written Down Value of £9.8MM as of 31<sup>st</sup> March 2011 which have been assumed and used in the financial model. A loss of £8.8MM derived from historic losses incurred by IGas were assumed to be utilised by the East Midland companies, and a non-ring fence loss of £12.5MM was also assumed.

### 5.5 Economic Results

Applying the above mentioned assumptions to the production profiles as determined in Section 2, the NPV on the Star Assets has been calculated for the 1P, 2P and 3P cases, with in the base case:

<sup>9</sup> some of these contracts are up for renewal, but are expected to be resigned on similar terms as are currently in place.

- Cost of capital of 10%;
- Brent Oil Price of \$85/bbl from 2016 onwards, and ICE Brent forward price curve from 2011-2015;
- UK Wholesale Gas Price of 55 pence per therm;
- Only including cashflows related to Star's net attributable share as per the licence;

The NPVs for the overall Star Assets are provided in the table below. The NPVs per field are provided in **Table 5.2**.

Un-Risked NPV (10%) Net Attributable to IGas Reserves in £MM			
NPV (£MM)	1P	2P	3P
Star Assets	70.8	127.3	176.8
<b>Total £MM</b>	<b>70.8</b>	<b>127.3</b>	<b>176.8</b>

No separate NPV has been determined for any gas production from the Star Assets, as historically gas production has been used for internal power generation, reducing Opex on the fields. Therefore, gas production is intrinsic in the overall field economics.

Additional income, including from petroleum and water handling on behalf of the assets (including Humbly Grove and Herriard) and from operational services provided to the Star gas storage business, results in an additional NPV(10%) of £20.2MM for the 2P<sup>10</sup> profiles, making the Total NPV £147.5MM.

### Sensitivity Analysis

Sensitivity analysis was carried out on a number of key drivers:

- Oil price – next to the base case scenario, a low estimate of \$70 and high estimate of \$100 has been used;
- Capex – base case plus / minus 20% has been used;
- Opex – base case plus / minus 20% has been used;
- Cost of Capital – next to the 10% base case a value of 8% has been used.

From this analysis it can be seen that the NPV is not very sensitive to changes in Capex. However, it should be noted that this Capex is for maintenance only and does not include any major expenditure, e.g. to drill wells. The NPV is most sensitive to fluctuations in oil price.

<sup>10</sup> This additional NPV figure is insignificantly different for the 1P and 3P cases

Sensitivity Analysis on Star Assets Reserves Net to IGas NPV for 2P case in £MM							
(£MM)	Base Case	Oil Price \$70/bbl	Oil Price \$100/bbl	Capex minus 20%	Capex plus 20%	Opex minus 20%	Opex plus 20%
10% Cost of Capital	127.3	102.2	140.1	130.0	124.4	139.2	113.7
8% Cost of Capital	143.3	114.0	158.7	146.5	140.0	156.0	128.6

## 6 References

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9. Mr. Mel Horgan, Technical Director, Star Energy
10. Dataroom documents - Excel document 2.2.5 'Projected Incremental Capex'

## 7 Nomenclature

Variable	Meaning	Units
2D	Two dimensional	
3D	Three dimensional	
Admission	Process of admission of an entity to a Stock Market.	
API	American Petroleum Institute	
AVO	Amplitude versus offset or amplitude variation with offset is often used as a direct hydrocarbon indicator.	
Best Estimate	An estimate representing the best technical assessment of projected volumes. Often associated with a central, P50 or mean value.	
BHFP	Bottom hole flowing pressure	psi
BHSIP	Bottom hole shut in pressure	psi
bbls/d	Barrels per day	
BCU	Base Cretaceous Unconformity	
bopd	Barrels of oil per day	
BPU	Base Permian Unconformity	
Bscf	Billions of standard cubic feet	
bwpd	Barrels of water per day	
CGR	Condensate gas ratio	
cp	Centipoise	
CNG	Compressed Natural Gas	
CO <sub>2</sub>	Carbon dioxide	
COS	Exploration or geological chance of success. The probability, typically expressed as a percentage that a given outcome will occur.	
CPI	Computer-processed interpretation	
d	Day	
DST	Drill stem test	
EMV	Expected Monetary Value	
° F / ° C	Degrees Fahrenheit / Centigrade	
FDP	Field Development Programme	
FWHP	Flowing wellhead pressure	psi
FWL	Free water level	
GDT	Gas Down To	ft or m
GIIP	Gas Initially In Place	
GR	Gamma ray	api
GOR	Gas Oil Ratio	
GRV	Gross Rock Volume	
GWC	Gas-water contact	
h	Thickness	ft or m
HIIP	Hydrocarbons Initially in Place	
IOR	Improved oil recovery	



k	Permeability	mD
k <sub>a</sub>	Air permeability	mD
kh	Permeability-thickness	mDft
k MT	Thousands of metric tonnes	
kw	Water Permeability	mD
Lead	A feature identified on seismic data that has the potential to become a prospect. Usually a Lead is associated with poorer quality or limited 2D seismic data.	
LKG	Lowest Known Gas	ft or m
LPG	Liquified Petroleum Gas	Tonnes
Ma	Millenia	
Mbal	Material Balance. A means of assessing HIIP.	
md	Measured depth	ft or m
mD	Millidarcies	
mdrkb	Measured Depth Rotary Kelly Bushing	ft or m
mdbrt	Measured depth Below Rotary Table	ft or m
Mean	The arithmetic average of a set of values	
MKK	Mirpur Khas and Khipro	
MJ/Sm <sup>3</sup>	Mega Joules per standard metre cubed.	
MM	Million	
MMbo	Million barrels oil	
MMboe	Millions of barrels of oil equivalent	
MMscf/d	Million standard cubic feet per day	
MMstb	Millions of barrels of stock tank oil	
N-D	Neuron-Density	
N/G	Net to Gross	
NPV	Net present value	
NUI	Normally unmanned installation	
OBM	Oil based mud	
ODT	Oil down to	
OPII	Orient Petroleum International Inc	
OWC	Oil water contact	
PDO	Plan of Development and Operation	
PEF	Photoelectric effect	
P <sub>res</sub>	Reservoir pressure	psi
ppg	pounds per gallon	
ppm	parts per million	
Producing	Related to development projects (eg wells and platforms): Active facilities, currently involved in the extraction (production) of hydrocarbons from discovered reservoirs.	
Prospective Resources	Prospective Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are	

	further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.	
Proved	Proved Reserves are those quantities of petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.	
Proved plus Probable	Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.	
Proved plus Probable plus Possible	Possible Reserves are those additional reserves which analysis of geo-science and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high estimate scenario. In this context, when probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate.	
PVT	Pressure Volume Temperature: Measurement of the variation in petroleum properties as the stated parameters is varied.	
P/Z	Reservoir pressure (P) divided by the compressibility factor (Z), which plotted against cumulative gas volume produced provides a simplified material balance analysis for gas fields.	
Reserves	Reserves are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.	
RFT	Repeat formation tester	
Rw	Water resistivity	

scf	Standard cubic foot	
So	Oil saturation	
SP	Spontaneous potential	
SSV	Surface safety valve	
SSSV	Surface and subsurface safety valve	
stb/d	Stock tank barrels per day	
STOIIP	Stock tank oil initially in place	
Sw	Water saturation	ratio
TD	Total depth	ft or m
TWT	Two way time	
tvdbrt	True vertical depth below rotary table	ft or m
tvdss	True vertical depth sub sea	ft or m
VoK	Average velocity function for depth conversion of time based seismic data, where Vo is the initial velocity and k provides information on the increase or decrease in velocity with depth. V0+k therefore provides a method of depth conversion using a linear velocity field, increasing or decreasing with depth for each geological zone.	
WGR	Water gas ratio	
WHP	Wellhead pressure	psi
WUT	Water up to	



Licence	Fields	IGas Interest	Operator	Partners	Area (km2)	Expiry
EAST MIDLANDS						
PL179	East Glentworth	100%	Yes	N/A	3.56	18/11/2026
PL179-2	Welton	100%	Yes	N/A		18/11/2026
PL179-2	Scampton & Scampton North	100%	Yes	N/A		18/11/2026
PL179-2	Stainton	100%	Yes	N/A		18/11/2026
PL179-2	Nettleham	100%	Yes	N/A		18/11/2026
PEDL006	Cold Hanworth	100%	Yes	N/A		04/04/2027
ML004-1/2	Gainsborough/Beckingham	100%	Yes	N/A	36.58	31/03/2015
ML004-3	Corringham/Glentworth	100%	Yes	N/A	34.59	31/03/2015
PL220-1	Long Clawson	100%	Yes	N/A	4	08/08/2016
PL220-2	Rempstone	100%	Yes	N/A	9	08/08/2016
ML006	Bothamsall	100%	Yes	N/A	11.05	31/03/2015
ML003	Egmanton	100%	Yes	N/A	25.76	30/12/2033
ML007	South Leverton	100%	Yes	N/A	12.24	31/03/2015
PEDL 235	Godley Bridge	100%	Yes	N/A		01/07/2039
PL 178	West Beckingham	100%	Yes	N/A		17/11/2014
PL 199	Near Nettleham	100%	Yes	N/A		01/11/2027
WEALD						
DL004	Albury	100.00%	Yes	N/A		16/11/2013
PL205	Storrington	100.00%	Yes	N/A		14/02/2016
PL182	Palmers Wood	100.00%	Yes	N/A		17/11/2014
PL211	Hordean	89.13%	Yes	Northern Petroleum (10%), Noble Energy (0.875%)		04/04/2016
PL233	Stockbridge	100.00%	Yes	N/A	58.49	27/10/2017
PL249	Stockbridge	100.00%	Yes	N/A	15.68	01/12/2017
DL002	Stockbridge	100.00%	Yes	N/A	10.59	31/12/2019
PEDL021	Goodworth	100.00%	Yes	N/A		04/04/2027
PEDL070	Avington	50.00%	Yes	Egdon (20%), YCI Resources (16.67%), Sterling Resources (8.33%), Northern Petroleum (5%)		08/09/2031
AL 009	Dunholme	100%	Yes	N/A		07/04/2025
ML 018	Bletchingly	100%	Yes	N/A		11/01/2017
ML 021	Bletchingly	100%	Yes	N/A		01/04/2017

Source: dataroom, MOFO Legal due diligence

Onshore						
Licence	Blocks	Fields	IGas Interest	Operator	Partners	Expiry
PEDL 40-1	SJ47	Swallowcroft	100%	Yes	N/A	2029
PEDL 56-1	SJ84	Swallowcroft	100%	Yes	N/A	2029
PEDL 78-1	SJ73	Greater Swallowcroft	100%	Yes	N/A	2029
PEDL 78-2	SJ71	Greater Swallowcroft	100%	Yes	N/A	2029
PEDL 145	SJ58	Four Oaks	100%	Yes	N/A	2029
PEDL 107	SJ18	Point of Ayr	100%	Yes	N/A	2013
PEDL 115-1	SJ82, SJ92	Greater Swallowcroft	100%	Yes	N/A	2013
PEDL 115-2	SK11	Greater Swallowcroft	100%	Yes	N/A	2013
PEDL 116	SJ48	Foxhill	100%	Yes	N/A	2013
PEDL 184	SJ27, SJ28, SJ37	North Dee	100%	Yes	N/A	2014
PEDL 190	SJ47	North Dee	100%	Yes	N/A	2014
PEDL 193	SJ68, SJ69, SJ79	Greater Parkside	100%	Yes	N/A	2014
Offshore						
Licence	Blocks	Fields	IGas Interest	Operator	Partners	Expiry
110/18		Point of Ayr	100%	Yes	N/A	2012
110/19		Point of Ayr	100%	Yes	N/A	2012
110/23		Point of Ayr	100%	Yes	N/A	2012

Source: IGas



senergy

## Reserves & Resources – Star Assets

### Competent Person's Report

Gross Reserves (MMbbl)	1P	2P	3P	Contingent Resources
Bothamsall	0.146	0.307	0.391	N/A
Cold Henworth	0.033	0.226	0.361	N/A
Coringham	0.129	0.302	0.582	0.242
East Glentworth	0.025	0.083	0.188	0.376
Egmanton	0.002	0.002	0.016	N/A
Gainsborough/Beckingham	0.308	0.738	1.129	0.200
Glentworth	0.293	0.592	0.864	N/A
Long Clawson	0.254	0.395	0.677	0.238
Nettleham	0.002	0.003	0.143	N/A
Rempstone	0.006	0.026	0.048	N/A
Scampton	0.014	0.051	0.125	N/A
Scampton North	0.240	0.422	0.530	N/A
Stainton	0.009	0.054	0.112	N/A
South Leverton	0.011	0.044	0.075	N/A
Wellton	2.339	3.284	4.699	0.200
Avington	0.025	0.037	0.413	5.800
Bletchingley	0.129	0.582	1.035	0.300
Goodworth	0.080	0.111	0.223	N/A
Hordean	0.445	0.657	0.911	N/A
Palmers Wood	0.024	0.043	0.186	N/A
Storrington	0.020	0.027	0.039	N/A
Stockbridge	1.206	1.732	2.412	N/A
<b>TOTAL (MMbbl)</b>	<b>5.74</b>	<b>9.72</b>	<b>15.16</b>	<b>7.36</b>
<b>TOTAL N ET (MMbbl)</b>	<b>5.68</b>	<b>9.63</b>	<b>14.85</b>	<b>4.46</b>

Gross Gas Reserves (Bscf)	1P	2P	3P	Contingent Resources
Gainsborough/Beckingham	4.2	6.5	7.7	N/A
Albury	0.7	2.2	2.7	N/A
<b>TOTAL GAS (Bscf)</b>	<b>4.90</b>	<b>8.70</b>	<b>10.40</b>	
<b>TOTAL GAS (MMboe)</b>	<b>0.84</b>	<b>1.50</b>	<b>1.79</b>	
<b>TOTAL (MMboe)</b>	<b>6.58</b>	<b>11.22</b>	<b>16.95</b>	<b>7.36</b>
<b>TOTAL N ET (MMboe)</b>	<b>6.52</b>	<b>11.13</b>	<b>16.65</b>	<b>4.46</b>

Source: Senergy Analysis

Table 1.3



## senergy Gross Contingent Resources – UK Gas Assets

Competent Person's Report

Gross Contingent Resources (Bscf)			
Name	Licence	1C	2C 3C
Swallowcroft A	PEDL 40/56	117	214 390
Swallowcroft B			
Greater Swallowcroft A	PEDL 78	41	88 198
Greater Swallowcroft B			
Greater Swallowcroft C	PEDL 115-1	72	165 410
Greater Swallowcroft D			
Greater Swallowcroft E	PEDL 115-2	15	31 60
Four Oaks; N of Mersey	PEDL 145	19	36 66
Four Oaks; S of Mersey	PEDL 145	40	95 214
PEDL 116	PEDL 116	16	28 50
North Dee A	PEDL 184	114	217 414
North Dee B	PEDL 190	50	89 156
Greater Parkside	PEDL 193	129	316 708
Point Ayr			
Point Ayr Offshore A	PEDL 110/19 & 107	47	91 172
Point Ayr Offshore B	PEDL 110/18 & 23	122	230 417
<b>Stochastic Aggregate (Bscf)</b>		<b>1400</b>	<b>1811 2389</b>

Source: Senergy Analysis

Table 1.4



	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
2H2011	6.3	34.3	7.0	7.0	38.4	8.1	8.1	8.1	44.3	
1H2012	6.1	12.4	33.7	6.9	13.9	37.9	8.0	16.1	43.9	
2H2012	6.0	18.4	33.0	6.8	20.7	37.3	7.9	24.0	43.4	
1H2013	5.9	24.3	32.3	6.7	27.5	36.8	7.9	31.9	43.0	
2H2013	5.8	30.1	31.7	6.6	34.1	36.3	7.8	39.7	42.6	
1H2014	5.7	35.8	31.1	6.5	40.6	35.8	7.7	47.4	42.2	
2H2014	5.6	41.4	30.5	6.4	47.1	35.3	7.6	55.0	41.8	
1H2015	5.5	46.8	29.9	6.4	53.4	34.8	7.6	62.6	41.4	
2H2015	5.3	52.2	29.3	6.3	59.7	34.4	7.5	70.0	41.0	
1H2016	5.2	57.4	28.7	6.2	65.9	33.9	7.4	77.4	40.6	
2H2016	5.1	62.5	28.1	6.1	72.0	33.5	7.3	84.8	40.2	
1H2017	5.0	67.6	27.6	6.0	78.1	33.0	7.3	92.1	39.8	
2H2017	4.9	72.5	27.0	6.0	84.0	32.6	7.2	99.3	39.4	
1H2018	4.8	77.3	26.5	5.9	89.9	32.2	7.1	106.4	39.1	
2H2018	4.7	82.1	26.0	5.8	95.7	31.8	7.1	113.5	38.7	
1H2019	4.6	86.7	25.4	5.7	101.4	31.4	7.0	120.5	38.4	
2H2019	4.6	91.3	24.9	5.7	107.1	31.0	6.9	127.4	38.0	
1H2020	4.5	95.7	24.4	5.6	112.6	30.6	6.9	134.3	37.7	
2H2020	4.4	100.1	24.0	5.5	118.1	30.2	6.8	141.1	37.3	
1H2021	4.3	104.4	23.5	5.4	123.6	29.8	6.8	147.9	37.0	
2H2021	4.2	108.6	23.0	5.4	129.0	29.4	6.7	154.6	36.7	
1H2022	4.1	112.7	22.6	5.3	134.3	29.1	6.6	161.2	36.3	
2H2022	4.0	116.8	22.1	5.2	139.5	28.7	6.6	167.8	36.0	
1H2023	4.0	120.7	21.7	5.2	144.7	28.4	6.5	174.3	35.7	
2H2023	3.9	124.6	21.3	5.1	149.8	28.0	6.5	180.8	35.4	
1H2024	3.8	128.4	20.8	5.1	154.9	27.7	6.4	187.2	35.1	
2H2024	3.7	132.1	20.4	5.0	159.9	27.4	6.4	193.5	34.8	
1H2025	3.7	135.8	20.0	4.9	164.8	27.0	6.3	199.8	34.5	
2H2025	3.6	139.4	19.6	4.9	169.7	26.7	6.2	206.1	34.2	
1H2026	3.5	142.9	19.2	4.8	174.5	26.4	6.2	212.3	33.9	
2H2026	3.4	146.3	18.9	4.8	179.3	26.1	6.1	218.4	33.6	
1H2027				4.7	184.0	25.8	6.1	224.5	33.4	
2H2027				4.7	188.7	25.5	6.0	230.5	33.1	
1H2028				4.6	193.3	25.2	6.0	236.5	32.8	
2H2028				4.6	197.8	24.9	5.9	242.5	32.5	

Source:

	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
1H2029				4.5	202.3	24.7	5.9	248.4	32.3	
2H2029				4.5	206.8	24.4	5.8	254.2	32.0	
1H2030				4.4	211.2	24.1	5.8	260.0	31.8	
2H2030				4.4	215.5	23.8	5.8	265.8	31.5	
1H2031				4.3	219.8	23.6	5.7	271.5	31.2	
2H2031				4.3	224.1	23.3	5.7	277.1	31.0	
1H2032				4.2	228.3	23.1	5.6	282.8	30.8	
2H2032				4.2	232.5	22.8	5.6	288.3	30.5	
1H2033				4.1	236.6	22.6	5.5	293.9	30.3	
2H2033				4.1	240.7	22.3	5.5	299.3	30.0	
1H2034				4.0	244.7	22.1	5.4	304.8	29.8	
2H2034				4.0	248.7	21.9	5.4	310.2	29.6	
1H2035				4.0	252.7	21.6	5.4	315.5	29.4	
2H2035				3.9	256.6	21.4	5.3	320.9	29.1	
1H2036				3.9	260.4	21.2	5.3	326.1	28.9	
2H2036				3.8	264.3	21.0	5.2	331.4	28.7	
1H2037				3.8	268.1	20.8	5.2	336.6	28.5	
2H2037				3.8	271.8	20.6	5.2	341.7	28.3	
1H2038				3.7	275.5	20.3	5.1	346.9	28.1	
2H2038				3.7	279.2	20.1	5.1	352.0	27.9	
1H2039				3.6	282.8	19.9	5.0	357.0	27.6	
2H2039				3.6	286.4	19.7	5.0	362.0	27.4	
1H2040				3.6	290.0	19.5	5.0	367.0	27.2	
2H2040				3.5	293.5	19.4	4.9	371.9	27.0	
1H2041				3.5	297.0	19.2	4.9	376.8	26.9	
2H2041				3.5	300.5	19.0	4.9	381.7	26.7	
1H2042				3.4	303.9	18.8	4.8	386.5	26.5	
2H2042				3.4	307.3	18.6	4.8	391.3	26.3	
1H2043										
2H2043										
1H2044										
2H2044										
1H2045										
2H2045										
1H2046										

Table 2.1





	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	9.2	50.4	17.0	17.0	93.1	20.8	20.8	113.9	
1H2012	7.7	16.9	42.1	15.5	32.5	85.0	19.2	40.0	105.3
2H2012	6.4	23.3	35.2	14.2	46.7	77.9	17.8	57.9	97.7
1H2013	5.4	28.7	29.4	13.1	59.8	71.6	16.6	74.5	90.9
2H2013	4.5	33.1	24.5	12.1	71.9	66.1	15.5	90.0	84.8
1H2014	3.7	36.9	20.5	11.2	83.1	61.2	14.5	104.4	79.3
2H2014	3.1	40.0	17.1	10.4	93.4	56.8	13.6	118.0	74.4
1H2015	2.6	42.6	14.3	9.6	103.1	52.8	12.8	130.8	69.9
2H2015				9.0	112.1	49.2	12.0	142.8	65.8
1H2016				8.4	120.5	46.0	11.3	154.1	62.0
2H2016				7.9	128.3	43.1	10.7	164.8	58.6
1H2017				7.4	135.7	40.4	10.1	175.0	55.5
2H2017				6.9	142.6	38.0	9.6	184.6	52.6
1H2018				6.5	149.2	35.7	9.1	193.7	50.0
2H2018				6.2	155.3	33.7	8.7	202.4	47.5
1H2019				5.8	161.1	31.8	8.3	210.6	45.2
2H2019				5.5	166.6	30.1	7.9	218.5	43.1
1H2020				5.2	171.8	28.5	7.5	226.0	41.2
2H2020				4.9	176.8	27.1	7.2	233.2	39.3
1H2021				4.7	181.5	25.7	6.9	240.1	37.6
2H2021				4.5	185.9	24.4	6.6	246.7	36.0
1H2022				4.2	190.2	23.3	6.3	253.0	34.6
2H2022				4.0	194.2	22.2	6.1	259.0	33.2
1H2023				3.9	198.1	21.1	5.8	264.8	31.8
2H2023				3.7	201.8	20.2	5.6	270.4	30.6
1H2024				3.5	205.3	19.3	5.4	275.8	29.4
2H2024				3.4	208.7	18.5	5.2	281.0	28.4
1H2025				3.2	211.9	17.7	5.0	286.0	27.3
2H2025				3.1	215.0	16.9	4.8	290.8	26.3
1H2026				3.0	218.0	16.3	4.6	295.4	25.4
2H2026				2.8	220.8	15.6	4.5	299.9	24.5
1H2027				2.7	223.5	15.0	4.3	304.2	23.7
2H2027				2.6	226.2	14.4	4.2	308.4	22.9
1H2028							4.1	312.5	22.2
2H2028							3.9	316.4	21.5

Source:

	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029							3.8	320.2	20.8
2H2029							3.7	323.9	20.2
1H2030							3.6	327.4	19.5
2H2030							3.5	330.9	19.0
1H2031							3.4	334.3	18.4
2H2031							3.3	337.5	17.9
1H2032							3.2	340.7	17.4
2H2032							3.1	343.8	16.9
1H2033							3.0	346.8	16.4
2H2033							2.9	349.7	16.0
1H2034							2.8	352.5	15.5
2H2034							2.8	355.3	15.1
1H2035							2.7	358.0	14.7
2H2035							2.6	360.6	14.3
1H2036									
2H2036									
1H2037									
2H2037									
1H2038									
2H2038									
1H2039									
2H2039									
1H2040									
2H2040									
1H2041									
2H2041									
1H2042									
2H2042									
1H2043									
2H2043									
1H2044									
2H2044									
1H2045									
2H2045									
1H2046									

Table 2.2



	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
2H2011	8.2	8.2	44.9	10.6	10.6	58.2	14.6	14.6	79.8	79.8
1H2012	7.8	16.0	42.8	10.3	20.9	56.3	14.3	28.8	78.1	78.1
2H2012	7.5	23.5	40.8	9.9	30.9	54.5	14.0	42.8	76.5	76.5
1H2013	7.1	30.6	38.9	9.6	40.5	52.7	13.7	56.5	75.0	75.0
2H2013	6.8	37.3	37.1	9.3	49.8	51.0	13.4	69.9	73.5	73.5
1H2014	6.4	43.8	35.3	9.0	58.8	49.4	13.2	83.1	72.1	72.1
2H2014	6.1	49.9	33.6	8.7	67.5	47.8	12.9	96.0	70.8	70.8
1H2015	5.9	55.8	32.1	8.5	76.0	46.3	12.7	108.7	69.4	69.4
2H2015	5.6	61.4	30.6	8.2	84.2	44.9	12.5	121.2	68.2	68.2
1H2016	5.3	66.7	29.1	7.9	92.1	43.5	12.2	133.4	67.0	67.0
2H2016	5.1	71.7	27.7	7.7	99.9	42.2	12.0	145.4	65.8	65.8
1H2017	4.8	76.6	26.4	7.5	107.3	40.9	11.8	157.2	64.6	64.6
2H2017	4.6	81.2	25.2	7.3	114.6	39.7	11.6	168.8	63.5	63.5
1H2018	4.4	85.6	24.0	7.0	121.6	38.5	11.4	180.2	62.4	62.4
2H2018	4.2	89.7	22.9	6.8	128.4	37.4	11.2	191.4	61.4	61.4
1H2019	4.0	93.7	21.8	6.6	135.1	36.3	11.0	202.4	60.4	60.4
2H2019	3.8	97.5	20.8	6.4	141.5	35.2	10.8	213.3	59.4	59.4
1H2020	3.6	101.1	19.8	6.2	147.8	34.2	10.7	224.0	58.5	58.5
2H2020	3.4	104.6	18.9	6.1	153.8	33.3	10.5	234.5	57.6	57.6
1H2021	3.3	107.8	18.0	5.9	159.7	32.3	10.3	244.8	56.7	56.7
2H2021	3.1	111.0	17.1	5.7	165.5	31.4	10.2	255.0	55.8	55.8
1H2022	3.0	114.0	16.3	5.6	171.0	30.5	10.0	265.0	55.0	55.0
2H2022	2.8	116.8	15.6	5.4	176.5	29.7	9.9	274.9	54.1	54.1
1H2023	2.7	119.5	14.8	5.3	181.7	28.9	9.7	284.7	53.3	53.3
2H2023	2.6	122.1	14.1	5.1	186.8	28.1	9.6	294.3	52.6	52.6
1H2024	2.5	124.5	13.5	5.0	191.8	27.3	9.5	303.7	51.8	51.8
2H2024	2.3	126.9	12.8	4.9	196.7	26.6	9.3	313.1	51.1	51.1
1H2025	2.2	129.1	12.2	4.7	201.4	25.9	9.2	322.3	50.4	50.4
2H2025				4.6	206.0	25.2	9.1	331.3	49.7	49.7
1H2026				4.5	210.5	24.5	8.9	340.3	49.0	49.0
2H2026				4.4	214.9	23.9	8.8	349.1	48.3	48.3
1H2027				4.2	219.1	23.3	8.7	357.8	47.7	47.7
2H2027				4.1	223.2	22.7	8.6	366.4	47.1	47.1
1H2028				4.0	227.3	22.1	8.5	374.9	46.5	46.5
2H2028				3.9	231.2	21.5	8.4	383.3	45.9	45.9

Source:

	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
1H2029				3.8	235.0	21.0	8.3	391.6	45.3	45.3
2H2029				3.7	238.8	20.5	8.2	399.7	44.7	44.7
1H2030				3.6	242.4	19.9	8.1	407.8	44.2	44.2
2H2030				3.6	246.0	19.5	8.0	415.8	43.6	43.6
1H2031				3.5	249.4	19.0	7.9	423.6	43.1	43.1
2H2031				3.4	252.8	18.5	7.8	431.4	42.6	42.6
1H2032				3.3	256.1	18.1	7.7	439.1	42.1	42.1
2H2032				3.2	259.3	17.6	7.6	446.7	41.6	41.6
1H2033				3.1	262.5	17.2	7.5	454.2	41.1	41.1
2H2033				3.1	265.5	16.8	7.4	461.6	40.6	40.6
1H2034				3.0	268.5	16.4	7.3	468.9	40.2	40.2
2H2034				2.9	271.4	16.0	7.3	476.2	39.7	39.7
1H2035				2.9	274.3	15.6	7.2	483.4	39.3	39.3
2H2035				2.8	277.1	15.3	7.1	490.5	38.8	38.8
1H2036				2.7	279.8	14.9	7.0	497.5	38.4	38.4
2H2036				2.7	282.5	14.6	6.9	504.4	38.0	38.0
1H2037				2.6	285.1	14.3	6.9	511.3	37.6	37.6
2H2037				2.5	287.6	13.9	6.8	518.1	37.2	37.2
1H2038				2.5	290.1	13.6	6.7	524.8	36.8	36.8
2H2038				2.4	292.5	13.3	6.7	531.5	36.4	36.4
1H2039				2.4	294.9	13.0	6.6	538.0	36.0	36.0
2H2039				2.3	297.2	12.7	6.5	544.5	35.7	35.7
1H2040				2.3	299.5	12.5	6.5	551.0	35.3	35.3
2H2040				2.2	301.7	12.2	6.4	557.4	35.0	35.0
1H2041							6.3	563.7	34.6	34.6
2H2041							6.3	570.0	34.3	34.3
1H2042							6.2	576.2	33.9	33.9
2H2042							6.1	582.3	33.6	33.6
1H2043										
2H2043										
1H2044										
2H2044										
1H2045										
2H2045										
1H2046										

Table 2.3



	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
2H2011	4.0	4.0	22.1	5.5	5.5	30.3	7.1	7.1	38.9	
1H2012	3.6	7.6	19.8	5.2	10.7	28.5	6.8	13.9	37.2	
2H2012	3.3	10.9	17.8	4.9	15.6	26.8	6.5	20.4	35.7	
1H2013	2.9	13.8	16.0	4.6	20.3	25.3	6.2	26.7	34.2	
2H2013	2.6	16.4	14.4	4.4	24.6	23.9	6.0	32.7	32.8	
1H2014	2.4	18.8	12.9	4.1	28.7	22.6	5.8	38.4	31.5	
2H2014	2.1	20.9	11.6	3.9	32.7	21.4	5.5	44.0	30.3	
1H2015	1.9	22.8	10.4	3.7	36.4	20.3	5.3	49.3	29.2	
2H2015	1.7	24.5	9.4	3.5	39.9	19.3	5.1	54.4	28.2	
1H2016				3.3	43.2	18.3	5.0	59.4	27.2	
2H2016				3.2	46.4	17.5	4.8	64.2	26.3	
1H2017				3.0	49.5	16.7	4.6	68.8	25.4	
2H2017				2.9	52.4	15.9	4.5	73.3	24.5	
1H2018				2.8	55.1	15.2	4.3	77.6	23.8	
2H2018				2.7	57.8	14.5	4.2	81.9	23.0	
1H2019				2.5	60.3	13.9	4.1	85.9	22.3	
2H2019				2.4	62.8	13.3	4.0	89.9	21.6	
1H2020				2.3	65.1	12.8	3.8	93.7	21.0	
2H2020				2.2	67.3	12.3	3.7	97.4	20.4	
1H2021				2.2	69.5	11.8	3.6	101.1	19.8	
2H2021				2.1	71.6	11.3	3.5	104.6	19.3	
1H2022				2.0	73.6	10.9	3.4	108.0	18.8	
2H2022				1.9	75.5	10.5	3.3	111.3	18.3	
1H2023				1.8	77.3	10.1	3.2	114.6	17.8	
2H2023				1.8	79.1	9.8	3.2	117.8	17.3	
1H2024				1.7	80.8	9.4	3.1	120.8	16.9	
2H2024				1.7	82.5	9.1	3.0	123.8	16.5	
1H2025							2.9	126.8	16.1	
2H2025							2.9	129.6	15.7	
1H2026							2.8	132.4	15.3	
2H2026							2.7	135.2	15.0	
1H2027							2.7	137.8	14.6	
2H2027							2.6	140.5	14.3	
1H2028							2.6	143.0	14.0	
2H2028							2.5	145.5	13.7	

Source:

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
1H2029								2.4	147.9	13.4
2H2029								2.4	150.3	13.1
1H2030								2.3	152.7	12.8
2H2030								2.3	155.0	12.6
1H2031								2.2	157.2	12.3
2H2031								2.2	159.4	12.1
1H2032								2.2	161.6	11.8
2H2032								2.1	163.7	11.6
1H2033								2.1	165.8	11.4
2H2033								2.0	167.8	11.2
1H2034								2.0	169.8	11.0
2H2034								2.0	171.8	10.8
1H2035								1.9	173.7	10.6
2H2035								1.9	175.6	10.4
1H2036								1.9	177.5	10.2
2H2036								1.8	179.3	10.0
1H2037								1.8	181.1	9.8
2H2037								1.8	182.8	9.7
1H2038								1.7	184.6	9.5
2H2038								1.7	186.3	9.3
1H2039								1.7	188.0	9.2
2H2039										
1H2040										
2H2040										
1H2041										
2H2041										
1H2042										
2H2042										
1H2043										
2H2043										
1H2044										
2H2044										
1H2045										
2H2045										
1H2046										

Table 2.4



	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	0.361	0.361	2.0	0.399	0.399	2.2	0.871	0.871	4.8
1H2012	0.332	0.693	1.8	0.368	0.767	2.0	0.795	1.666	4.4
2H2012	0.313	1.006	1.7	0.348	1.115	1.9	0.744	2.410	4.1
1H2013	0.287	1.293	1.6	0.321	1.436	1.8	0.680	3.090	3.7
2H2013	0.271	1.564	1.5	0.307	1.743	1.7	0.644	3.734	3.5
1H2014	0.249	1.813	1.4	0.284	2.027	1.6	0.591	4.325	3.2
2H2014	0.235	2.048	1.3	0.273	2.300	1.5	0.562	4.887	3.1
1H2015	0.216	2.264	1.2	0.253	2.553	1.4	0.518	5.405	2.8
2H2015	0.204	2.468	1.1	0.244	2.797	1.3	0.495	5.900	2.7
1H2016	0.188	2.656	1.0	0.228	3.025	1.2	0.461	6.361	2.5
2H2016	0.177	2.833	1.0	0.219	3.244	1.2	0.439	6.800	2.4
1H2017	0.162	2.995	0.9	0.205	3.449	1.1	0.408	7.208	2.2
2H2017	0.153	3.148	0.8	0.198	3.647	1.1	0.393	7.601	2.2
1H2018	0.141	3.289	0.8	0.186	3.833	1.0	0.366	7.967	2.0
2H2018	0.133	3.422	0.7	0.180	4.013	1.0	0.353	8.320	1.9
1H2019	0.122	3.544	0.7	0.169	4.182	0.9	0.330	8.650	1.8
2H2019	0.115	3.659	0.6	0.164	4.346	0.9	0.319	8.969	1.7
1H2020	0.106	3.765	0.6	0.155	4.501	0.8	0.300	9.269	1.6
2H2020	0.100	3.865	0.5	0.150	4.651	0.8	0.290	9.559	1.6
1H2021	0.092	3.957	0.5	0.142	4.793	0.8	0.272	9.831	1.5
2H2021	0.087	4.044	0.5	0.138	4.931	0.8	0.264	10.095	1.4
1H2022	0.079	4.123	0.4	0.131	5.062	0.7	0.249	10.344	1.4
2H2022	0.075	4.198	0.4	0.128	5.190	0.7	0.242	10.586	1.3
1H2023	0.069	4.267	0.4	0.121	5.311	0.7	0.228	10.814	1.2
2H2023	0.065	4.332	0.4	0.118	5.429	0.6	0.222	11.036	1.2
1H2024	0.060	4.392	0.3	0.112	5.541	0.6	0.211	11.247	1.2
2H2024	0.057	4.449	0.3	0.110	5.651	0.6	0.205	11.452	1.1
1H2025	0.052	4.501	0.3	0.104	5.755	0.6	0.194	11.646	1.1
2H2025	0.049	4.550	0.3	0.102	5.857	0.6	0.190	11.836	1.0
1H2026	0.045	4.595	0.2	0.097	5.954	0.5	0.180	12.016	1.0
2H2026	0.043	4.638	0.2	0.095	6.049	0.5	0.176	12.192	1.0
1H2027	0.039	4.677	0.2	0.090	6.139	0.5	0.167	12.359	0.9
2H2027	0.037	4.714	0.2	0.089	6.228	0.5	0.164	12.523	0.9
1H2028	0.034	4.748	0.2	0.085	6.313	0.5	0.157	12.680	0.9
2H2028	0.032	4.780	0.2	0.083	6.396	0.5	0.153	12.833	0.8

Source:

	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029	0.029	4.809	0.2	0.079	6.475	0.4	0.145	12.978	0.8
2H2029	0.028	4.837	0.2	0.078	6.553	0.4	0.143	13.121	0.8
1H2030	0.025	4.862	0.1	0.075	6.628	0.4	0.136	13.257	0.7
2H2030	0.024	4.886	0.1	0.074	6.702	0.4	0.134	13.391	0.7
1H2031	0.022	4.908	0.1	0.070	6.772	0.4	0.128	13.519	0.7
2H2031	0.021	4.929	0.1	0.069	6.841	0.4	0.126	13.645	0.7
1H2032	0.019	4.948	0.1	0.067	6.908	0.4	0.121	13.766	0.7
2H2032	0.006	4.954	0.0	0.066	6.974	0.4	0.118	13.884	0.6
1H2033				0.063	7.037	0.3	0.113	13.997	0.6
2H2033				0.062	7.099	0.3	0.112	14.109	0.6
1H2034				0.059	7.158	0.3	0.107	14.216	0.6
2H2034				0.059	7.217	0.3	0.105	14.321	0.6
1H2035				0.056	7.273	0.3	0.101	14.422	0.6
2H2035				0.056	7.329	0.3	0.100	14.522	0.5
1H2036				0.054	7.383	0.3	0.096	14.618	0.5
2H2036				0.053	7.436	0.3	0.094	14.712	0.5
1H2037				0.051	7.487	0.3	0.090	14.802	0.5
2H2037				0.050	7.537	0.3	0.089	14.891	0.5
1H2038				0.048	7.585	0.3	0.086	14.977	0.5
2H2038				0.048	7.633	0.3	0.085	15.062	0.5
1H2039				0.046	7.679	0.3	0.081	15.143	0.4
2H2039				0.046	7.725	0.3	0.081	15.224	0.4
1H2040				0.044	7.769	0.2	0.078	15.302	0.4
2H2040				0.044	7.813	0.2	0.077	15.379	0.4
1H2041				0.042	7.855	0.2	0.074	15.453	0.4
2H2041				0.042	7.897	0.2	0.073	15.526	0.4
1H2042				0.040	7.937	0.2	0.070	15.596	0.4
2H2042				0.040	7.977	0.2	0.070	15.666	0.4
1H2043				0.038	8.015	0.2	0.067	15.733	0.4
2H2043				0.038	8.053	0.2	0.067	15.800	0.4
1H2044				0.037	8.090	0.2	0.065	15.865	0.4
2H2044				0.037	8.127	0.2	0.064	15.929	0.4
1H2045				0.035	8.162	0.2	0.061	15.990	0.3
2H2045				0.035	8.197	0.2	0.061	16.051	0.3
1H2046				0.028	8.225	0.2	0.049	16.100	0.3



# senergy Gainsborough/Beckingham

## Competent Person's Report

	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
2H2011	28.50	156.1	32.6	178.7	32.6	178.7	32.6	178.7
1H2012	25.21	138.0	30.4	166.6	31.0	169.6	31.0	169.6
2H2012	23.51	128.7	29.0	158.6	30.1	164.9	30.1	164.9
1H2013	21.34	116.9	26.9	147.3	28.5	156.3	28.5	156.3
2H2013	20.02	118.58	25.9	144.8	28.0	153.3	28.0	153.3
1H2014	18.17	136.75	24.1	168.9	26.6	145.8	26.6	145.8
2H2014	17.05	153.80	23.2	192.1	26.2	203.1	26.2	203.1
1H2015	15.48	169.28	21.7	213.8	25.0	228.1	25.0	228.1
2H2015	14.52	183.80	21.0	234.8	24.6	252.7	24.6	252.7
1H2016	13.25	197.05	19.8	254.5	23.7	276.4	23.7	276.4
2H2016	12.36	209.40	19.0	273.6	23.3	299.6	23.3	299.6
1H2017	11.22	220.62	17.9	291.5	22.3	321.9	22.3	321.9
2H2017	10.52	231.14	17.4	308.8	22.1	344.0	22.1	344.0
1H2018	9.55	240.69	16.4	325.2	21.2	365.1	21.2	365.1
2H2018	8.96	249.66	15.9	341.1	21.0	386.1	21.0	386.1
1H2019	8.13	257.79	15.0	356.2	20.2	406.3	20.2	406.3
2H2019	7.63	265.42	14.7	370.8	20.0	426.3	20.0	426.3
1H2020	6.96	272.38	13.9	384.8	19.4	445.7	19.4	445.7
2H2020	6.50	278.88	13.5	398.3	19.2	464.9	19.2	464.9
1H2021	5.90	284.77	12.8	411.1	18.5	483.3	18.5	483.3
2H2021	5.53	290.31	12.5	423.6	18.4	501.7	18.4	501.7
1H2022	5.02	295.33	11.9	435.5	17.7	519.5	17.7	519.5
2H2022	4.71	300.04	11.7	447.2	17.7	537.2	17.7	537.2
1H2023	4.28	304.31	11.1	458.2	17.1	554.3	17.1	554.3
2H2023	4.01	308.32	10.9	469.1	17.1	571.3	17.1	571.3
1H2024	3.66	311.98	10.4	479.5	16.6	587.9	16.6	587.9
2H2024	3.41	315.40	10.1	489.6	16.5	604.4	16.5	604.4
1H2025	3.10	318.50	9.7	499.3	15.9	620.3	15.9	620.3
2H2025	2.91	321.40	9.5	508.8	15.9	636.2	15.9	636.2
1H2026	2.64	324.04	9.1	517.9	15.4	651.6	15.4	651.6
2H2026	2.48	326.52	8.9	526.8	15.4	667.1	15.4	667.1
1H2027	2.25	328.76	8.5	535.3	14.9	682.0	14.9	682.0
2H2027	2.11	330.87	8.4	543.7	15.0	697.0	15.0	697.0
1H2028	1.92	332.80	8.1	551.8	14.6	711.5	14.6	711.5
2H2028	1.79	334.59	7.9	559.7	14.5	726.1	14.5	726.1

Source:

	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
1H2029	1.63	336.22	8.9	7.6	567.2	41.4	14.1	740.2
2H2029	1.53	337.75	8.4	7.5	574.7	40.9	14.1	754.3
1H2030	1.39	339.13	7.6	7.2	581.9	39.2	13.7	768.0
2H2030	1.30	340.43	7.1	7.1	589.0	38.7	13.8	781.8
1H2031	1.18	341.62	6.5	6.8	595.7	37.1	13.4	795.1
2H2031	1.11	342.72	6.1	6.7	602.4	36.7	13.4	808.5
1H2032	1.01	343.73	5.5	6.5	608.9	35.4	13.1	821.6
2H2032	0.94	344.68	5.2	6.4	615.3	34.9	13.1	834.7
1H2033	0.86	345.53	4.7	6.1	621.4	33.4	12.7	847.4
2H2033	0.80	346.34	4.4	6.1	627.4	33.1	12.8	860.2
1H2034	0.73	347.07	4.0	5.8	633.2	31.8	12.4	872.7
2H2034	0.68	347.75	3.7	5.8	639.0	31.5	12.5	885.1
1H2035	0.62	348.37	3.4	5.5	644.5	30.3	12.2	897.3
2H2035	0.58	348.95	3.2	5.5	650.0	30.1	12.2	909.5
1H2036	0.53	349.48	2.9	5.3	655.3	29.1	12.0	921.5
2H2036	0.50	349.98	2.7	5.2	660.6	28.7	12.0	933.4
1H2037	0.45	350.43	2.5	5.0	665.6	27.6	11.6	945.1
2H2037	0.42	350.85	2.3	5.0	670.6	27.4	11.7	956.8
1H2038	0.38	351.23	2.1	4.8	675.4	26.4	11.4	968.2
2H2038	0.36	351.59	2.0	4.8	680.2	26.3	11.5	979.7
1H2039	0.33	351.92	1.8	4.6	684.8	25.3	11.2	990.9
2H2039	0.31	352.23	1.7	4.6	689.4	25.1	11.3	1002.2
1H2040	0.28	352.50	1.5	4.4	693.9	24.4	11.0	1013.2
2H2040	0.26	352.77	1.4	4.4	698.3	24.1	11.1	1024.3
1H2041	0.24	353.00	1.3	4.2	702.5	23.2	10.8	1035.0
2H2041	0.22	353.22	1.2	4.2	706.8	23.1	10.9	1045.9
1H2042	0.20	353.43	1.1	4.1	710.8	22.3	10.6	1056.5
2H2042	0.19	353.61	1.0	4.1	714.9	22.2	10.7	1067.2
1H2043	0.17	353.79	0.9	3.9	718.8	21.4	10.4	1077.6
2H2043	0.16	353.95	0.9	3.9	722.7	21.4	10.5	1088.1
1H2044	0.15	354.09	0.8	3.8	726.5	20.7	10.3	1098.4
2H2044	0.14	354.23	0.8	3.8	730.2	20.6	10.3	1108.7
1H2045	0.12	354.35	0.7	3.6	733.9	19.9	10.1	1118.8
2H2045	0.12	354.47	0.6	3.6	737.5	19.8	10.2	1129.0
1H2046	0.09	354.56	0.5	2.9	740.4	16.0	8.3	1137.3

Table 2.6



	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
2H2011	20.04	20.04	109.7	20.4	20.4	111.8	20.7	20.7	113.2		
1H2012	18.50	38.54	101.3	19.4	39.8	106.2	20.0	40.7	109.5		
2H2012	17.46	55.99	95.6	18.9	58.7	103.2	19.8	60.4	108.3		
1H2013	16.03	72.02	87.8	17.8	76.5	97.7	19.1	79.5	104.3		
2H2013	15.21	87.24	83.3	17.5	94.0	95.7	19.0	98.5	103.9		
1H2014	13.97	101.21	76.5	16.6	110.6	90.7	18.3	116.8	100.2		
2H2014	13.26	114.46	72.6	16.2	126.8	88.9	18.2	135.0	99.8		
1H2015	12.18	126.64	66.7	15.4	142.2	84.4	17.6	152.6	96.3		
2H2015	11.55	138.19	63.3	15.1	157.3	82.8	17.5	170.1	96.1		
1H2016	10.67	148.86	58.4	14.5	171.8	79.1	17.0	187.2	93.3		
2H2016	10.07	158.92	55.1	14.1	185.9	77.3	16.9	204.1	92.6		
1H2017	9.24	168.17	50.6	13.4	199.3	73.6	16.3	220.4	89.4		
2H2017	8.77	176.94	48.0	13.2	212.6	72.4	16.3	236.7	89.3		
1H2018	8.06	184.99	44.1	12.6	225.1	68.9	15.8	252.5	86.3		
2H2018	7.65	192.64	41.9	12.4	237.5	67.9	15.8	268.2	86.3		
1H2019	7.02	199.66	38.4	11.8	249.4	64.7	15.2	283.5	83.5		
2H2019	6.66	206.32	36.5	11.7	261.0	63.8	15.2	298.7	83.5		
1H2020	6.15	212.47	33.7	11.2	272.2	61.2	14.8	313.5	81.2		
2H2020	5.80	218.28	31.8	11.0	283.2	60.1	14.8	328.3	80.8		
1H2021	5.33	223.61	29.2	10.5	293.6	57.4	14.3	342.6	78.2		
2H2021	5.06	228.66	27.7	10.3	304.0	56.7	14.3	356.9	78.3		
1H2022	4.65	233.31	25.4	9.9	313.9	54.2	13.9	370.7	75.9		
2H2022	4.41	237.72	24.1	9.8	323.7	53.5	13.9	384.6	76.0		
1H2023	4.05	241.77	22.2	9.4	333.0	51.2	13.4	398.1	73.6		
2H2023	3.84	245.61	21.0	9.3	342.3	50.7	13.5	411.5	73.8		
1H2024	3.55	249.15	19.4	8.9	351.2	48.8	13.1	424.7	71.9		
2H2024	3.35	252.50	18.3	8.8	360.0	48.0	13.1	437.8	71.7		
1H2025	3.07	255.57	16.8	8.4	368.4	46.0	12.7	450.5	69.5		
2H2025	2.92	258.49	16.0	8.3	376.7	45.6	12.7	463.2	69.7		
1H2026	2.68	261.17	14.7	8.0	384.7	43.7	12.4	475.6	67.7		
2H2026	2.54	263.71	13.9	7.9	392.6	43.3	12.4	488.0	67.9		
1H2027	2.33	266.05	12.8	7.6	400.1	41.5	12.0	500.0	65.9		
2H2027	2.22	268.26	12.1	7.5	407.7	41.2	12.1	512.1	66.1		
1H2028	2.05	270.31	11.2	7.3	414.9	39.8	11.8	523.8	64.5		
2H2028	1.93	272.24	10.6	7.2	422.1	39.2	11.8	535.6	64.4		

Source:

	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
1H2029	1.77	274.01	9.7	6.9	429.0	37.7	11.4	547.0	62.6		
2H2029	1.68	275.69	9.2	6.8	435.8	37.4	11.5	558.5	62.8		
1H2030	1.54	277.23	8.5	6.6	442.4	36.0	11.2	569.7	61.1		
2H2030	1.47	278.70	8.0	6.5	448.9	35.7	11.2	580.9	61.3		
1H2031	1.35	280.05	7.4	6.3	455.2	34.4	10.9	591.8	59.6		
2H2031	1.28	281.32	7.0	6.2	461.4	34.2	10.9	602.7	59.9		
1H2032	1.18	282.50	6.5	6.0	467.5	33.0	10.7	613.4	58.5		
2H2032	1.11	283.61	6.1	6.0	473.4	32.7	10.7	624.1	58.5		
1H2033	1.02	284.64	5.6	5.7	479.2	31.5	10.4	634.4	56.9		
2H2033	0.97	285.61	5.3	5.7	484.9	31.3	10.4	644.9	57.2		
1H2034	0.89	286.50	4.9	5.5	490.4	30.1	10.2	655.1	55.6		
2H2034	0.85	287.34	4.6	5.5	495.9	30.0	10.2	665.3	55.9		
1H2035	0.78	288.12	4.2	5.3	501.2	28.9	9.9	675.2	54.7		
2H2035	0.74	288.86	4.0	5.3	506.4	28.8	10.0	685.2	54.7		
1H2036	0.68	289.54	3.7	5.1	511.5	27.9	9.8	695.0	53.6		
2H2036	0.64	290.18	3.5	5.0	516.6	27.6	9.8	704.8	53.6		
1H2037	0.59	290.77	3.2	4.9	521.4	26.6	9.5	714.3	52.2		
2H2037	0.56	291.33	3.1	4.9	526.3	26.6	9.6	723.9	52.5		
1H2038	0.51	291.84	2.8	4.7	530.9	25.6	9.3	733.2	51.1		
2H2038	0.49	292.33	2.7	4.7	535.6	25.5	9.4	742.6	51.4		
1H2039	0.45	292.77	2.5	4.5	540.1	24.6	9.1	751.7	50.1		
2H2039	0.43	293.20	2.3	4.5	544.6	24.6	9.2	760.9	50.4		
1H2040	0.39	293.59	2.1	4.4	549.0	23.9	9.0	769.9	49.4		
2H2040	0.37	293.96	2.0	4.3	553.3	23.7	9.0	779.0	49.4		
1H2041	0.34	294.30	1.9	4.2	557.5	22.9	8.8	787.8	48.1		
2H2041	0.32	294.62	1.8	4.2	561.6	22.8	8.9	796.6	48.5		
1H2042	0.30	294.92	1.6	4.0	565.6	22.0	8.6	805.2	47.2		
2H2042	0.28	295.20	1.5	4.0	569.7	22.0	8.7	813.9	47.6		
1H2043	0.26	295.46	1.4	3.9	573.6	21.3	8.5	822.4	46.4		
2H2043	0.25	295.70	1.3	3.9	577.4	21.2	8.5	830.9	46.7		
1H2044	0.23	295.93	1.2	3.8	581.2	20.6	8.4	839.3	45.8		
2H2044	0.21	296.14	1.2	3.7	584.9	20.5	8.4	847.6	45.8		
1H2045	0.20	296.34	1.1	3.6	588.6	19.8	8.2	855.8	44.7		
2H2045	0.19	296.52	1.0	3.6	592.2	19.8	8.2	864.0	45.0		
1H2046	0.14	296.67	0.8	2.9	595.1	16.0	6.7	870.7	36.7		



	1P	1P	2P	2P	1P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
2H2011	18.03	18.03	98.7	18.03	18.03	98.7	18.03	18.03	18.03	18.03	98.7
1H2012	16.21	34.25	88.8	16.43	34.47	90.0	17.32	35.35	94.8		
2H2012	15.29	49.54	83.7	15.66	50.13	85.8	17.02	52.37	93.2		
1H2013	14.03	63.57	76.8	14.55	64.68	79.7	16.28	68.65	89.1		
2H2013	13.31	76.88	72.9	13.99	78.67	76.6	16.11	84.76	88.2		
1H2014	12.22	89.10	66.9	13.04	91.71	71.4	15.43	100.19	84.5		
2H2014	11.59	100.69	63.5	12.58	104.28	68.9	15.29	115.49	83.7		
1H2015	10.64	111.32	58.2	11.75	116.03	64.3	14.67	130.16	80.3		
2H2015	10.09	121.41	55.2	11.36	127.40	62.2	14.56	144.71	79.7		
1H2016	9.31	130.72	51.0	10.70	138.10	58.6	14.06	158.77	77.0		
2H2016	8.78	139.50	48.1	10.32	148.42	56.5	13.89	172.66	76.0		
1H2017	8.06	147.56	44.1	9.69	158.10	53.0	13.35	186.01	73.1		
2H2017	7.64	155.20	41.9	9.41	167.51	51.5	13.28	199.28	72.7		
1H2018	7.02	162.22	38.4	8.85	176.36	48.5	12.78	212.06	70.0		
2H2018	6.65	168.87	36.4	8.62	184.98	47.2	12.72	224.78	69.6		
1H2019	6.11	174.98	33.4	8.12	193.10	44.5	12.25	237.03	67.1		
2H2019	5.79	180.77	31.7	7.92	201.02	43.4	12.20	249.23	66.8		
1H2020	5.35	186.11	29.3	7.52	208.55	41.2	11.83	261.06	64.8		
2H2020	5.04	191.15	27.6	7.30	215.85	40.0	11.73	272.79	64.2		
1H2021	4.63	195.78	25.3	6.91	222.76	37.8	11.32	284.11	62.0		
2H2021	4.39	200.17	24.0	6.76	229.52	37.0	11.29	295.40	61.8		
1H2022	4.03	204.20	22.1	6.40	235.92	35.1	10.90	306.30	59.7		
2H2022	3.82	208.02	20.9	6.27	242.19	34.3	10.88	317.18	59.6		
1H2023	3.51	211.52	19.2	5.95	248.14	32.6	10.52	327.70	57.6		
2H2023	3.33	214.85	18.2	5.84	253.97	32.0	10.50	338.20	57.5		
1H2024	3.07	217.92	16.8	5.57	259.55	30.5	10.21	348.41	55.9		
2H2024	2.89	220.81	15.8	5.44	264.99	29.8	10.15	358.56	55.6		
1H2025	2.66	223.47	14.5	5.18	270.16	28.3	9.82	368.38	53.8		
2H2025	2.52	225.99	13.8	5.09	275.25	27.9	9.82	378.20	53.8		
1H2026	2.31	228.30	12.7	4.84	280.09	26.5	9.51	387.71	52.1		
2H2026	2.19	230.49	12.0	4.77	284.86	26.1	9.51	397.22	52.1		
1H2027	2.01	232.51	11.0	4.54	289.41	24.9	9.21	406.43	50.4		
2H2027	1.91	234.42	10.5	4.48	293.88	24.5	9.22	415.65	50.5		
1H2028	1.76	236.18	9.6	4.29	298.18	23.5	8.98	424.63	49.2		
2H2028	1.66	237.84	9.1	4.21	302.39	23.1	8.95	433.58	49.0		

Source:

	1P	1P	2P	2P	1P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
1H2029	1.53	239.37	8.4	4.02	306.41	22.0	8.67	442.25	47.5		
2H2029	1.45	240.81	7.9	3.97	310.38	21.7	8.69	450.94	47.6		
1H2030	1.33	242.14	7.3	3.79	314.17	20.8	8.43	459.37	46.1		
2H2030	1.26	243.40	6.9	3.75	317.92	20.5	8.45	467.82	46.3		
1H2031	1.16	244.56	6.3	3.58	321.50	19.6	8.20	476.01	44.9		
2H2031	1.10	245.65	6.0	3.54	325.04	19.4	8.22	484.23	45.0		
1H2032	1.01	246.66	5.5	3.41	328.45	18.7	8.02	492.25	43.9		
2H2032	0.95	247.62	5.2	3.36	331.81	18.4	8.00	500.25	43.8		
1H2033	0.88	248.49	4.8	3.21	335.02	17.6	7.77	508.01	42.5		
2H2033	0.83	249.32	4.6	3.18	338.20	17.4	7.79	515.81	42.7		
1H2034	0.76	250.09	4.2	3.05	341.25	16.7	7.57	523.37	41.4		
2H2034	0.72	250.81	4.0	3.02	344.27	16.5	7.60	530.97	41.6		
1H2035	0.66	251.47	3.6	2.90	347.17	15.9	7.38	538.35	40.4		
2H2035	0.63	252.10	3.4	2.87	350.04	15.7	7.41	545.76	40.6		
1H2036	0.58	252.68	3.2	2.77	352.82	15.2	7.24	553.00	39.6		
2H2036	0.55	253.23	3.0	2.74	355.55	15.0	7.23	560.23	39.6		
1H2037	0.50	253.74	2.8	2.63	358.18	14.4	7.03	567.26	38.5		
2H2037	0.48	254.21	2.6	2.61	360.79	14.3	7.06	574.33	38.7		
1H2038	0.44	254.65	2.4	2.51	363.29	13.7	6.87	581.20	37.6		
2H2038	0.42	255.07	2.3	2.49	365.78	13.6	6.90	588.10	37.8		
1H2039	0.38	255.45	2.1	2.39	368.17	13.1	6.71	594.81	36.8		
2H2039	0.36	255.81	2.0	2.38	370.55	13.0	6.75	601.56	37.0		
1H2040	0.33	256.14	1.8	2.30	372.85	12.6	6.60	608.16	36.1		
2H2040	0.32	256.46	1.7	2.27	375.12	12.4	6.60	614.76	36.1		
1H2041	0.29	256.75	1.6	2.19	377.31	12.0	6.42	621.18	35.2		
2H2041	0.27	257.02	1.5	2.18	379.48	11.9	6.46	627.64	35.4		
1H2042	0.25	257.27	1.4	2.10	381.58	11.5	6.29	633.93	34.4		
2H2042	0.24	257.51	1.3	2.09	383.66	11.4	6.32	640.25	34.6		
1H2043	0.22	257.73	1.2	2.01	385.67	11.0	6.16	646.41	33.7		
2H2043	0.21	257.94	1.1	2.00	387.67	10.9	6.19	652.60	33.9		
1H2044	0.19	258.13	1.0	1.94	389.61	10.6	6.06	658.66	33.2		
2H2044	0.18	258.31	1.0	1.92	391.53	10.5	6.07	664.73	33.2		
1H2045	0.17	258.47	0.9	1.85	393.38	10.1	5.91	670.64	32.4		
2H2045	0.16	258.63	0.9	1.84	395.22	10.1	5.95	676.59	32.6		
1H2046	0.12	258.75	0.7	1.49	396.70	8.1	4.84	681.43	26.5		



	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	0.361	0.361	2.0	0.851	0.851	4.7	5.314	5.314	29.1
1H2012	0.332	0.693	1.8	0.725	1.576	4.0	5.055	10.369	27.7
2H2012	0.313	1.006	1.7	0.639	2.215	3.5	4.814	15.183	26.4
1H2013	0.287	1.293	1.6	0.552	2.767	3.0	4.589	19.773	25.1
2H2013	0.271	1.564	1.5	0.497	3.264	2.7	4.381	24.154	24.0
1H2014	0.249	1.813	1.4	0.436	3.700	2.4	4.186	28.340	22.9
2H2014	0.235	2.048	1.3	0.398	4.098	2.2	4.003	32.343	21.9
1H2015	0.216	2.264	1.2	0.353	4.451	1.9	3.833	36.176	21.0
2H2015	0.204	2.468	1.1	0.326	4.777	1.8	3.674	39.851	20.1
1H2016	0.188	2.656	1.0	0.293	5.070	1.6	3.525	43.375	19.3
2H2016	0.177	2.833	1.0	0.271	5.341	1.5	3.384	46.759	18.5
1H2017	0.162	2.995	0.9	0.245	5.586	1.3	3.253	50.012	17.8
2H2017	0.153	3.148	0.8	0.230	5.816	1.3	3.128	53.140	17.1
1H2018	0.141	3.289	0.8	0.209	6.025	1.1	3.011	56.152	16.5
2H2018	0.133	3.422	0.7	0.197	6.222	1.1	2.900	59.052	15.9
1H2019	0.122	3.544	0.7	0.180	6.402	1.0	2.796	61.848	15.3
2H2019	0.115	3.659	0.6	0.171	6.573	0.9	2.697	64.545	14.8
1H2020	0.106	3.765	0.6	0.158	6.731	0.9	2.602	67.148	14.3
2H2020	0.100	3.865	0.5	0.149	6.880	0.8	2.515	69.662	13.8
1H2021	0.092	3.957	0.5	0.138	7.018	0.8	2.429	72.091	13.3
2H2021	0.087	4.044	0.5	0.132	7.150	0.7	2.349	74.440	12.9
1H2022	0.079	4.123	0.4	0.122	7.272	0.7	2.274	76.713	12.5
2H2022	0.075	4.198	0.4	0.117	7.389	0.6	2.201	78.914	12.1
1H2023	0.069	4.267	0.4	0.109	7.498	0.6	2.131	81.045	11.7
2H2023	0.065	4.332	0.4	0.105	7.603	0.6	2.065	83.111	11.3
1H2024	0.060	4.392	0.3	0.098	7.701	0.5	2.024	85.135	11.1
2H2024	0.057	4.449	0.3	0.094	7.795	0.5	1.984	87.119	10.9
1H2025	0.052	4.501	0.3	0.088	7.883	0.5	1.944	89.063	10.6
2H2025	0.049	4.550	0.3	0.085	7.968	0.5	1.905	90.968	10.4
1H2026	0.045	4.595	0.2	0.080	8.048	0.4	1.867	92.835	10.2
2H2026	0.043	4.638	0.2	0.078	8.126	0.4	1.830	94.665	10.0
1H2027	0.039	4.677	0.2	0.073	8.199	0.4	1.793	96.458	9.8
2H2027	0.037	4.714	0.2	0.071	8.270	0.4	1.757	98.215	9.6
1H2028	0.034	4.748	0.2	0.067	8.337	0.4	1.722	99.937	9.4
2H2028	0.032	4.780	0.2	0.065	8.402	0.4	1.688	101.625	9.2

Source:

	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029	0.029	4.809	0.2	0.061	8.463	0.3	1.654	103.279	9.1
2H2029	0.028	4.837	0.2	0.060	8.523	0.3	1.621	104.899	8.9
1H2030	0.025	4.862	0.1	0.056	8.579	0.3	1.588	106.488	8.7
2H2030	0.024	4.886	0.1	0.055	8.634	0.3	1.557	108.044	8.5
1H2031	0.022	4.908	0.1	0.052	8.686	0.3	1.526	109.570	8.4
2H2031	0.021	4.929	0.1	0.051	8.737	0.3	1.495	111.065	8.2
1H2032	0.019	4.948	0.1	0.049	8.786	0.3	1.465	112.530	8.0
2H2032	0.006	4.954	0.0	0.047	8.833	0.3	1.436	113.966	7.9
1H2033				0.045	8.878	0.2	1.407	115.373	7.7
2H2033				0.044	8.922	0.2	1.379	116.752	7.6
1H2034				0.042	8.964	0.2	1.351	118.103	7.4
2H2034				0.041	9.005	0.2	1.324	119.428	7.3
1H2035				0.039	9.044	0.2	1.298	120.725	7.1
2H2035				0.039	9.083	0.2	1.272	121.997	7.0
1H2036				0.037	9.120	0.2	1.246	123.244	6.8
2H2036				0.036	9.156	0.2	1.222	124.465	6.7
1H2037				0.034	9.190	0.2	1.197	125.662	6.6
2H2037				0.034	9.224	0.2	1.173	126.835	6.4
1H2038				0.032	9.256	0.2	1.150	127.985	6.3
2H2038				0.032	9.288	0.2	1.127	129.112	6.2
1H2039				0.030	9.318	0.2	1.104	130.216	6.0
2H2039				0.030	9.348	0.2	1.082	131.298	5.9
1H2040				0.029	9.377	0.2	1.060	132.359	5.8
2H2040				0.028	9.405	0.2	1.039	133.398	5.7
1H2041				0.027	9.432	0.1	1.018	134.416	5.6
2H2041				0.027	9.459	0.1	0.998	135.414	5.5
1H2042				0.026	9.485	0.1	0.978	136.392	5.4
2H2042				0.025	9.510	0.1	0.959	137.351	5.2
1H2043				0.024	9.534	0.1	0.939	138.290	5.1
2H2043				0.024	9.558	0.1	0.921	139.211	5.0
1H2044				0.023	9.581	0.1	0.902	140.113	4.9
2H2044				0.023	9.604	0.1	0.884	140.997	4.8
1H2045				0.022	9.626	0.1	0.866	141.864	4.7
2H2045				0.022	9.648	0.1	0.849	142.713	4.6
1H2046				0.021	9.669	0.1	0.832	143.545	4.6

Table 2.9





	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	1.93	10.6	2.27	2.27	12.5	2.68	2.68	14.7	
1H2012	1.86	3.79	10.2	2.22	4.50	12.2	2.62	5.31	14.4
2H2012	1.81	5.60	9.9	2.18	6.67	11.9	2.57	7.87	14.1
1H2013				2.13	8.80	11.7	2.51	10.39	13.8
2H2013				2.09	10.89	11.4	2.46	12.85	13.5
1H2014				2.04	12.93	11.2	2.41	15.26	13.2
2H2014				2.00	14.93	11.0	2.36	17.62	12.9
1H2015				1.96	16.89	10.8	2.32	19.94	12.7
2H2015				1.92	18.82	10.5	2.27	22.21	12.4
1H2016				1.89	20.71	10.3	2.23	24.44	12.2
2H2016				1.85	22.56	10.2	2.19	26.62	12.0
1H2017				1.82	24.38	10.0	2.15	28.77	11.8
2H2017				1.79	26.16	9.8	2.11	30.88	11.5
1H2018							2.07	32.95	11.3
2H2018							2.03	34.98	11.1
1H2019							2.00	36.97	10.9
2H2019							1.96	38.93	10.7
1H2020							1.92	40.86	10.5
2H2020							1.89	42.75	10.3
1H2021							1.86	44.60	10.2
2H2021							1.82	46.42	10.0
1H2022							1.79	48.21	9.8
2H2022									
1H2023									
2H2023									
1H2024									
2H2024									
1H2025									
2H2025									
1H2026									
2H2026									
1H2027									
2H2027									
1H2028									
2H2028									

Source:

Table 2.10





	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	21.28	21.28	116.5	21.28	21.28	116.5	21.28	21.28	116.5
1H2012	19.14	40.42	104.8	19.58	40.86	107.2	19.62	40.90	107.4
2H2012	17.72	58.15	97.1	18.46	59.31	101.1	18.57	59.47	101.7
1H2013	15.97	74.12	87.5	16.97	76.29	92.9	17.18	76.64	94.1
2H2013	14.87	88.99	81.4	16.17	92.46	88.5	16.48	93.12	90.2
1H2014	13.40	102.39	73.4	14.93	107.39	81.8	15.35	108.47	84.0
2H2014	12.48	114.87	68.3	14.28	121.67	78.2	14.81	123.28	81.1
1H2015	11.25	126.12	61.6	13.24	134.91	72.5	13.87	137.14	75.9
2H2015	10.47	136.59	57.3	12.70	147.61	69.6	13.45	150.59	73.6
1H2016	9.49	146.08	51.9	11.88	159.49	65.1	12.72	163.31	69.6
2H2016	8.78	154.86	48.1	11.37	170.86	62.3	12.31	175.62	67.4
1H2017	7.92	162.78	43.3	10.61	181.47	58.1	11.62	187.24	63.6
2H2017	7.37	170.15	40.4	10.24	191.71	56.1	11.36	198.60	62.2
1H2018	6.64	176.79	36.4	9.58	201.29	52.5	10.75	209.35	58.9
2H2018	6.19	182.98	33.9	9.27	210.56	50.8	10.54	219.89	57.7
1H2019	5.57	188.55	30.5	8.69	219.26	47.6	10.01	229.90	54.8
2H2019	5.19	193.74	28.4	8.43	227.69	46.2	9.83	239.73	53.8
1H2020	4.70	198.44	25.7	7.97	235.66	43.6	9.41	249.13	51.5
2H2020	4.35	202.79	23.8	7.70	243.36	42.2	9.21	258.34	50.4
1H2021	3.92	206.72	21.5	7.25	250.62	39.7	8.78	267.12	48.1
2H2021	3.65	210.37	20.0	7.06	257.68	38.7	8.66	275.79	47.4
1H2022	3.29	213.66	18.0	6.66	264.35	36.5	8.28	284.07	45.3
2H2022	3.07	216.72	16.8	6.50	270.85	35.6	8.18	292.25	44.8
1H2023	2.76	219.49	15.1	6.14	276.99	33.6	7.83	300.07	42.9
2H2023	2.57	222.06	14.1	6.00	283.00	32.9	7.75	307.82	42.4
1H2024	2.33	224.39	12.8	5.71	288.71	31.3	7.46	315.28	40.9
2H2024	2.16	226.55	11.8	5.56	294.27	30.5	7.36	322.64	40.3
1H2025	1.94	228.49	10.6	5.27	299.54	28.9	7.06	329.70	38.6
2H2025	1.81	230.30	9.9	5.17	304.70	28.3	7.00	336.70	38.4
1H2026	1.63	231.93	8.9	4.90	309.61	26.8	6.73	343.43	36.8
2H2026	1.52	233.45	8.3	4.81	314.42	26.3	6.68	350.11	36.6
1H2027	1.37	234.82	7.5	4.57	318.99	25.0	6.43	356.54	35.2
2H2027	1.28	236.09	7.0	4.49	323.48	24.6	6.39	362.93	35.0
1H2028	1.16	237.25	6.3	4.30	327.78	23.5	6.19	369.12	33.9
2H2028	1.07	238.32	5.9	4.20	331.98	23.0	6.12	375.24	33.5

Source:

	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029	0.96	239.28	5.3	4.00	335.98	21.9	5.90	381.14	32.3
2H2029	0.90	240.18	4.9	3.94	339.92	21.6	5.88	387.02	32.2
1H2030	0.81	240.99	4.4	3.76	343.68	20.6	5.67	392.69	31.0
2H2030	0.75	241.74	4.1	3.70	347.38	20.3	5.65	398.34	30.9
1H2031	0.68	242.42	3.7	3.53	350.91	19.3	5.45	403.79	29.9
2H2031	0.63	243.05	3.5	3.49	354.40	19.1	5.44	409.23	29.8
1H2032	0.57	243.62	3.1	3.35	357.74	18.3	5.28	414.51	28.9
2H2032	0.53	244.15	2.9	3.29	361.03	18.0	5.25	419.76	28.7
1H2033	0.48	244.63	2.6	3.14	364.17	17.2	5.07	424.83	27.8
2H2033	0.45	245.07	2.4	3.11	367.28	17.0	5.06	429.89	27.7
1H2034	0.40	245.47	2.2	2.97	370.25	16.3	4.90	434.78	26.8
2H2034	0.37	245.85	2.0	2.94	373.19	16.1	4.89	439.68	26.8
1H2035	0.34	246.18	1.8	2.81	376.00	15.4	4.74	444.41	25.9
2H2035	0.31	246.50	1.7	2.78	378.78	15.2	4.74	449.15	25.9
1H2036	0.28	246.78	1.6	2.68	381.46	14.7	4.61	453.76	25.2
2H2036	0.26	247.04	1.4	2.64	384.10	14.5	4.59	458.34	25.1
1H2037	0.24	247.28	1.3	2.53	386.63	13.9	4.44	462.79	24.3
2H2037	0.22	247.50	1.2	2.51	389.14	13.7	4.45	467.23	24.4
1H2038	0.20	247.70	1.1	2.41	391.55	13.2	4.31	471.54	23.6
2H2038	0.19	247.88	1.0	2.39	393.94	13.1	4.32	475.86	23.6
1H2039	0.17	248.05	0.9	2.29	396.23	12.6	4.18	480.04	22.9
2H2039	0.16	248.21	0.8	2.27	398.50	12.5	4.19	484.23	23.0
1H2040	0.14	248.35	0.8	2.20	400.70	12.0	4.09	488.32	22.4
2H2040	0.13	248.48	0.7	2.17	402.87	11.9	4.08	492.40	22.3
1H2041	0.12	248.59	0.6	2.08	404.95	11.4	3.95	496.35	21.6
2H2041	0.11	248.70	0.6	2.07	407.02	11.3	3.97	500.31	21.7
1H2042	0.10	248.80	0.5	1.99	409.01	10.9	3.85	504.16	21.1
2H2042	0.09	248.89	0.5	1.98	410.99	10.8	3.86	508.02	21.1
1H2043	0.08	248.98	0.5	1.90	412.89	10.4	3.75	511.77	20.5
2H2043	0.08	249.05	0.4	1.89	414.78	10.4	3.76	515.53	20.6
1H2044	0.07	249.12	0.4	1.83	416.62	10.0	3.67	519.20	20.1
2H2044	0.06	249.19	0.4	1.81	418.43	9.9	3.67	522.87	20.1
1H2045	0.06	249.24	0.3	1.75	420.17	9.6	3.56	526.43	19.5
2H2045	0.05	249.30	0.3	1.74	421.91	9.5	3.58	530.01	19.6
1H2046	0.05	249.35	0.3	1.67	423.58	9.2	3.48	533.48	19.0

Prepared for IGas

Source:



	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	1.07	1.07	5.9	1.32	1.32	7.2	1.63	1.63	8.9
1H2012	1.04	2.11	5.7	1.30	2.62	7.1	1.61	3.23	8.8
2H2012	1.02	3.14	5.6	1.29	3.91	7.0	1.59	4.82	8.7
1H2013	1.00	4.14	5.5	1.27	5.18	7.0	1.57	6.39	8.6
2H2013	0.98	5.12	5.4	1.25	6.43	6.9	1.55	7.94	8.5
1H2014	0.96	6.07	5.3	1.24	7.67	6.8	1.53	9.46	8.4
2H2014	0.94	7.01	5.1	1.22	8.89	6.7	1.51	10.97	8.3
1H2015	0.92	7.93	5.0	1.21	10.10	6.6	1.49	12.47	8.2
2H2015	0.90	8.83	4.9	1.19	11.30	6.5	1.47	13.94	8.1
1H2016	0.88	9.72	4.8	1.18	12.48	6.5	1.46	15.40	8.0
2H2016	0.87	10.58	4.7	1.17	13.64	6.4	1.44	16.84	7.9
1H2017				1.15	14.80	6.3	1.42	18.26	7.8
2H2017				1.14	15.94	6.3	1.41	19.67	7.7
1H2018				1.13	17.07	6.2	1.39	21.07	7.6
2H2018				1.12	18.18	6.1	1.38	22.44	7.5
1H2019				1.10	19.29	6.1	1.36	23.81	7.5
2H2019				1.09	20.38	6.0	1.35	25.15	7.4
1H2020				1.08	21.46	5.9	1.33	26.49	7.3
2H2020				1.07	22.53	5.9	1.32	27.81	7.2
1H2021				1.06	23.59	5.8	1.31	29.11	7.1
2H2021				1.05	24.63	5.7	1.29	30.40	7.1
1H2022				1.04	25.67	5.7	1.28	31.68	7.0
2H2022				1.03	26.70	5.6	1.27	32.95	6.9
1H2023				1.02	27.71	5.6	1.25	34.20	6.9
2H2023				1.00	28.72	5.5	1.24	35.44	6.8
1H2024				1.00	29.71	5.5	1.23	36.67	6.7
2H2024				0.98	30.70	5.4	1.21	37.88	6.7
1H2025				0.98	31.67	5.3	1.20	39.09	6.6
2H2025				0.97	32.64	5.3	1.19	40.28	6.5
1H2026				0.96	33.59	5.2	1.18	41.46	6.5
2H2026				0.95	34.54	5.2	1.17	42.63	6.4
1H2027				0.94	35.48	5.1	1.16	43.79	6.3
2H2027				0.93	36.41	5.1	1.15	44.94	6.3
1H2028				0.92	37.33	5.0	1.14	46.07	6.2
2H2028				0.91	38.24	5.0	1.13	47.20	6.2

Source:

	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029				0.90	39.15	5.0	1.12	48.32	6.1
2H2029				0.90	40.04	4.9	1.11	49.42	6.1
1H2030				0.89	40.93	4.9	1.10	50.52	6.0
2H2030				0.88	41.81	4.8	1.09	51.60	5.9
1H2031				0.87	42.68	4.8	1.08	52.68	5.9
2H2031				0.87	43.55	4.7	1.07	53.75	5.9
1H2032							1.06	54.81	5.8
2H2032							1.05	55.86	5.8
1H2033							1.04	56.90	5.7
2H2033							1.03	57.93	5.7
1H2034							1.02	58.96	5.6
2H2034							1.02	59.97	5.6
1H2035							1.01	60.98	5.5
2H2035							1.00	61.98	5.5
1H2036							0.99	62.97	5.4
2H2036							0.98	63.95	5.4
1H2037							0.97	64.93	5.3
2H2037							0.97	65.89	5.3
1H2038							0.96	66.85	5.2
2H2038							0.95	67.80	5.2
1H2039							0.94	68.74	5.2
2H2039							0.93	69.68	5.1
1H2040							0.93	70.60	5.1
2H2040							0.92	71.52	5.0
1H2041							0.91	72.43	5.0
2H2041							0.90	73.34	4.9
1H2042							0.90	74.23	4.9
2H2042							0.89	75.12	4.9
1H2043									
2H2043									
1H2044									
2H2044									
1H2045									
2H2045									
1H2046									

Table 2.14



	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	109.7	109.7	600.6	109.7	109.7	600.6	109.7	109.7	600.6
1H2012	100.9	210.6	552.4	102.8	212.5	562.9	105.9	215.6	580.1
2H2012	97.6	308.2	534.3	100.0	312.5	547.6	104.7	320.3	573.2
1H2013	91.9	400.0	503.0	94.7	407.2	518.8	100.7	421.0	551.4
2H2013	89.3	489.4	489.2	92.8	500.1	508.4	100.2	521.2	548.6
1H2014	84.1	573.5	460.5	88.1	588.2	482.4	96.5	617.7	528.5
2H2014	81.8	655.3	448.0	86.5	674.6	473.5	96.1	713.9	526.4
1H2015	77.0	732.3	421.7	82.2	756.8	450.0	92.7	806.6	507.7
2H2015	74.9	807.2	410.2	80.8	837.6	442.3	92.5	899.0	506.3
1H2016	70.9	878.1	388.2	77.3	914.9	423.3	89.8	988.8	491.5
2H2016	68.6	946.6	375.5	75.7	990.6	414.3	89.1	1077.9	487.9
1H2017	64.5	1011.2	353.4	72.1	1062.7	394.8	86.1	1164.0	471.5
2H2017	62.8	1073.9	343.8	71.0	1133.7	389.0	86.0	1250.1	471.1
1H2018	59.1	1133.0	323.6	67.8	1201.5	371.2	83.2	1333.3	455.7
2H2018	57.5	1190.5	314.8	66.9	1268.4	366.2	83.2	1416.5	455.7
1H2019	54.1	1244.6	296.3	63.9	1332.3	349.8	80.6	1497.0	441.1
2H2019	52.6	1297.3	288.2	63.1	1395.4	345.5	80.6	1577.7	441.5
1H2020	49.8	1347.1	272.7	60.7	1456.0	332.2	78.5	1656.2	430.0
2H2020	48.2	1395.2	263.8	59.6	1515.7	326.6	78.2	1734.4	428.3
1H2021	45.4	1440.6	248.3	57.1	1572.8	312.6	75.8	1810.2	415.2
2H2021	44.1	1484.7	241.5	56.5	1629.3	309.4	76.0	1886.2	416.0
1H2022	41.5	1526.2	227.4	54.1	1683.4	296.4	73.7	1959.9	403.6
2H2022	40.4	1566.6	221.2	53.6	1737.0	293.6	73.9	2033.8	404.7
1H2023	38.0	1604.6	208.2	51.4	1788.4	281.5	71.7	2105.6	392.8
2H2023	37.0	1641.6	202.5	51.0	1839.4	279.0	72.0	2177.5	394.1
1H2024	35.0	1676.6	191.6	49.2	1888.5	269.2	70.3	2247.8	384.8
2H2024	33.9	1710.5	185.4	48.5	1937.0	265.6	70.2	2318.0	384.2
1H2025	31.9	1742.3	174.5	46.6	1983.6	255.1	68.2	2386.1	373.3
2H2025	31.0	1773.3	169.7	46.3	2029.9	253.3	68.5	2454.6	374.9
1H2026	29.2	1802.5	159.8	44.5	2074.3	243.4	66.6	2521.2	364.5
2H2026	28.4	1830.9	155.4	44.2	2118.5	241.8	66.9	2588.0	366.2
1H2027	26.7	1857.6	146.3	42.5	2161.0	232.6	65.0	2653.1	356.2
2H2027	26.0	1883.6	142.3	42.2	2203.2	231.3	65.4	2718.5	358.0
1H2028	24.6	1908.2	134.7	40.9	2244.1	223.8	64.0	2782.4	350.3
2H2028	23.8	1932.0	130.3	40.4	2284.5	221.4	64.0	2846.4	350.3

Source:

	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029	22.4	1954.4	122.6	38.9	2323.4	213.2	62.3	2908.7	340.9
2H2029	21.8	1976.1	119.3	38.8	2362.2	212.2	62.6	2971.3	343.0
1H2030	20.5	1996.6	112.3	37.3	2399.5	204.5	61.0	3032.3	334.0
2H2030	19.9	2016.6	109.2	37.2	2436.7	203.6	61.4	3093.7	336.1
1H2031	18.8	2035.4	102.8	35.9	2472.6	196.3	59.8	3153.5	327.4
2H2031	18.3	2053.6	100.0	35.7	2508.3	195.6	60.2	3213.7	329.6
1H2032	17.3	2070.9	94.6	34.7	2542.9	189.7	59.0	3272.7	322.9
2H2032	16.7	2087.6	91.5	34.4	2577.3	188.1	59.1	3331.7	323.4
1H2033	15.7	2103.3	86.1	33.2	2610.5	181.6	57.6	3389.3	315.2
2H2033	15.3	2118.7	83.8	33.1	2643.5	181.1	58.0	3447.3	317.6
1H2034	14.4	2133.1	78.9	31.9	2675.5	174.9	56.5	3503.8	309.6
2H2034	14.0	2147.1	76.7	31.9	2707.3	174.5	57.0	3560.8	312.0
1H2035	13.2	2160.3	72.2	30.8	2738.1	168.6	55.6	3616.4	304.2
2H2035	12.8	2173.1	70.3	30.7	2768.9	168.3	56.0	3672.4	306.7
1H2036	12.1	2185.2	66.5	29.9	2798.7	163.6	54.9	3727.3	300.8
2H2036	11.7	2197.0	64.3	29.7	2828.4	162.5	55.1	3782.4	301.6
1H2037	11.1	2208.0	60.5	28.7	2857.1	157.1	53.7	3836.1	294.3
2H2037	10.8	2218.8	58.9	28.7	2885.8	157.0	54.2	3890.3	296.8
1H2038	10.1	2228.9	55.4	27.7	2913.5	151.8	52.9	3943.2	289.6
2H2038	9.8	2238.7	53.9	27.7	2941.2	151.8	53.4	3996.6	292.2
1H2039	9.3	2248.0	50.7	26.8	2968.0	146.8	52.1	4048.6	285.2
2H2039	9.0	2257.0	49.4	26.8	2994.8	146.9	52.5	4101.2	287.7
1H2040	8.5	2265.6	46.7	26.1	3020.9	142.9	51.6	4152.8	282.5
2H2040	8.3	2273.8	45.2	26.0	3046.9	142.2	51.8	4204.5	283.5
1H2041	7.8	2281.6	42.5	25.1	3072.0	137.7	50.6	4255.1	276.9
2H2041	7.6	2289.1	41.4	25.2	3097.2	137.8	51.0	4306.1	279.5
1H2042	7.1	2296.3	38.9	24.4	3121.6	133.4	49.9	4356.0	273.0
2H2042	6.9	2303.2	37.9	24.4	3146.0	133.6	50.3	4406.3	275.6
1H2043	6.5	2309.7	35.7	23.6	3169.6	129.4	49.2	4455.5	269.2
2H2043	6.3	2316.0	34.7	23.7	3193.3	129.6	49.6	4505.1	271.9
1H2044	6.0	2322.0	32.8	23.1	3216.4	126.3	48.8	4553.9	267.1
2H2044	5.8	2327.8	31.7	23.0	3239.3	125.8	49.0	4602.9	268.3
1H2045	5.5	2333.3	29.9	22.3	3261.6	122.0	47.9	4650.8	262.2
2H2045	5.3	2338.6	29.1	22.3	3283.9	122.3	48.4	4699.2	264.8
1H2046	5.0	2343.6	27.4	21.7	3305.7	119.0	47.4	4746.6	259.7



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## Gas Profiles Albury

## Competent Person's Report

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MMscf	MMscf/d	MMscf	MMscf	MMscf/d	MMscf	MMscf	MMscf	MMscf	MMscf/d
2H2011	58.4	58.4	0.32	58.4	58.4	0.32	58.4	58.4	58.4	0.32
1H2012	58.4	116.8	0.32	58.4	116.8	0.32	58.4	116.8	58.4	0.32
2H2012	58.4	175.2	0.32	58.4	175.2	0.32	58.4	175.2	58.4	0.32
1H2013	58.4	233.6	0.32	58.4	233.6	0.32	58.4	233.6	58.4	0.32
2H2013	58.4	292.0	0.32	58.4	292.0	0.32	58.4	292.0	58.4	0.32
1H2014	58.4	350.4	0.32	58.4	350.4	0.32	58.4	350.4	58.4	0.32
2H2014	58.4	408.8	0.32	58.4	408.8	0.32	58.4	408.8	58.4	0.32
1H2015	58.4	467.2	0.32	58.4	467.2	0.32	58.4	467.2	58.4	0.32
2H2015	58.4	525.6	0.32	58.4	525.6	0.32	58.4	525.6	58.4	0.32
1H2016	58.4	584.0	0.32	58.4	584.0	0.32	58.4	584.0	58.4	0.32
2H2016	58.4	642.4	0.32	58.4	642.4	0.32	58.4	642.4	58.4	0.32
1H2017	58.4	700.8	0.32	58.4	700.8	0.32	58.4	700.8	58.4	0.32
2H2017		-	-	58.4	759.2	0.32	58.4	759.2	58.4	0.32
1H2018		-	-	58.4	817.6	0.32	58.4	817.6	58.4	0.32
2H2018		-	-	58.4	876.0	0.32	58.4	876.0	58.4	0.32
1H2019		-	-	58.4	934.4	0.32	58.4	934.4	58.4	0.32
2H2019		-	-	58.4	992.8	0.32	58.4	992.8	58.4	0.32
1H2020		-	-	58.4	1051.2	0.32	58.4	1051.2	58.4	0.32
2H2020		-	-	58.4	1109.6	0.32	58.4	1109.6	58.4	0.32
1H2021		-	-	58.4	1168.0	0.32	58.4	1168.0	58.4	0.32
2H2021		-	-	58.4	1226.4	0.32	58.4	1226.4	58.4	0.32
1H2022		-	-	58.4	1284.8	0.32	58.4	1284.8	58.4	0.32
2H2022		-	-	58.4	1343.2	0.32	58.4	1343.2	58.4	0.32
1H2023		-	-	58.4	1401.6	0.32	58.4	1401.6	58.4	0.32
2H2023		-	-	58.4	1460.0	0.32	58.4	1460.0	58.4	0.32
1H2024		-	-	58.4	1518.4	0.32	58.4	1518.4	58.4	0.32
2H2024		-	-	58.4	1576.8	0.32	58.4	1576.8	58.4	0.32
1H2025		-	-	58.4	1635.2	0.32	58.4	1635.2	58.4	0.32
2H2025		-	-	58.4	1693.6	0.32	58.4	1693.6	58.4	0.32
1H2026		-	-	58.4	1752.0	0.32	58.4	1752.0	58.4	0.32
2H2026		-	-	58.4	1810.4	0.32	58.4	1810.4	58.4	0.32
1H2027		-	-	58.4	1868.8	0.32	58.4	1868.8	58.4	0.32
2H2027		-	-	58.4	1927.2	0.32	58.4	1927.2	58.4	0.32
1H2028		-	-	58.4	1985.6	0.32	58.4	1985.6	58.4	0.32
2H2028		-	-	58.4	2044.0	0.32	58.4	2044.0	58.4	0.32

Source:

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MMscf	MMscf/d	MMscf	MMscf	MMscf/d	MMscf	MMscf	MMscf	MMscf	MMscf/d
1H2029				58.4	2102.4	0.32	58.4	2102.4	58.4	0.32
2H2029				58.4	2160.8	0.32	58.4	2160.8	58.4	0.32
1H2030				58.4	2219.2	0.32	58.4	2219.2	58.4	0.32
2H2030							58.4	2277.6	58.4	0.32
1H2031							58.4	2336.0	58.4	0.32
2H2031							58.4	2394.4	58.4	0.32
1H2032							58.4	2452.8	58.4	0.32
2H2032							58.4	2511.2	58.4	0.32
1H2033							58.4	2569.6	58.4	0.32
2H2033							58.4	2628.0	58.4	0.32
1H2034							58.4	2686.4	58.4	0.32
2H2034										
1H2035										
2H2035										
1H2036										
2H2036										
1H2037										
2H2037										
1H2038										
2H2038										
1H2039										
2H2039										
1H2040										
2H2040										
1H2041										
2H2041										
1H2042										
2H2042										
1H2043										
2H2043										
1H2044										
2H2044										
1H2045										
2H2045										
1H2046										

Table 2.16



	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	7.801	42.7	7.801	7.801	42.7	7.801	7.801	7.801	42.7
1H2012	6.001	13.802	32.9	6.621	14.422	36.3	6.621	14.422	36.3
2H2012	4.719	18.521	25.8	5.675	20.097	31.1	19.339	33.761	105.9
1H2013	3.613	22.134	19.8	5.063	25.160	27.7	18.527	52.288	101.4
2H2013	2.859	24.993	15.7	4.458	29.618	24.4	18.096	70.384	99.1
1H2014	2.188	27.181	12.0	4.101	33.719	22.5	16.112	86.496	88.2
2H2014	1.732	28.913	9.5	3.684	37.403	20.2	14.961	101.457	81.9
1H2015	1.326	30.239	7.3	3.447	40.850	18.9	13.543	115.000	74.2
2H2015	1.049	31.288	5.7	3.140	43.990	17.2	12.752	127.752	69.8
1H2016	0.807	32.095	4.4	2.972	46.962	16.3	11.744	139.496	64.3
2H2016	0.635	32.730	3.5	2.750	49.712	15.1	11.108	150.604	60.8
1H2017	0.486	33.216	2.7	2.612	52.324	14.3	10.266	160.870	56.2
2H2017	0.384	33.600	2.1	2.423	54.747	13.3	9.842	170.712	53.9
1H2018	0.294	33.894	1.6	2.330	57.077	12.8	9.160	179.872	50.2
2H2018	0.233	34.127	1.3	2.175	59.252	11.9	8.836	188.708	48.4
1H2019	0.178	34.305	1.0	2.103	61.355	11.5	8.269	196.977	45.3
2H2019	0.141	34.446	0.8	1.973	63.328	10.8	8.016	204.993	43.9
1H2020	0.108	34.554	0.6	1.917	65.245	10.5	7.576	212.569	41.5
2H2020	0.085	34.639	0.5	1.815	67.060	9.9	7.334	219.903	40.2
1H2021	0.065	34.704	0.4	1.760	68.820	9.6	6.920	226.823	37.9
2H2021	0.052	34.756	0.3	1.664	70.484	9.1	6.760	233.583	37.0
1H2022	0.040	34.796	0.2	1.628	72.112	8.9	6.399	239.982	35.0
2H2022	0.031	34.827	0.2	1.543	73.655	8.4	6.269	246.251	34.3
1H2023	0.024	34.851	0.1	1.514	75.169	8.3	5.951	252.202	32.6
2H2023	0.013	34.864	0.1	1.438	76.607	7.9	5.845	258.047	32.0
1H2024				1.414	78.021	7.7	5.592	263.639	30.6
2H2024				1.355	79.376	7.4	5.474	269.113	30.0
1H2025				1.327	80.703	7.3	5.219	274.332	28.6
2H2025				1.267	81.970	6.9	5.148	279.480	28.2
1H2026				1.251	83.221	6.9	4.917	284.397	26.9
2H2026				1.196	84.417	6.5	4.858	289.255	26.6
1H2027				1.182	85.599	6.5	4.648	293.903	25.5
2H2027				1.132	86.731	6.2	4.600	298.503	25.2
1H2028				1.121	87.852	6.1	4.431	302.934	24.3
2H2028				1.081	88.933	5.9	4.367	307.301	23.9

Source:

	1P	1P	2P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
1H2029				1.065	89.998	5.8	4.190	311.491	22.9
2H2029				1.023	91.021	5.6	4.157	315.648	22.8
1H2030				1.015	92.036	5.6	3.993	319.641	21.9
2H2030				0.976	93.012	5.3	3.966	323.607	21.7
1H2031				0.970	93.982	5.3	3.814	327.421	20.9
2H2031				0.933	94.915	5.1	3.792	331.213	20.8
1H2032				0.928	95.843	5.1	3.670	334.883	20.1
2H2032				0.899	96.742	4.9	3.632	338.515	19.9
1H2033				0.890	97.632	4.9	3.499	342.014	19.2
2H2033				0.858	98.490	4.7	3.486	345.500	19.1
1H2034				0.855	99.345	4.7	3.361	348.861	18.4
2H2034				0.824	100.169	4.5	3.350	352.211	18.3
1H2035				0.822	100.991	4.5	3.233	355.444	17.7
2H2035				0.794	101.785	4.3	3.225	358.669	17.7
1H2036				0.792	102.577	4.3	3.132	361.801	17.1
2H2036				0.769	103.346	4.2	3.109	364.910	17.0
1H2037				0.764	104.110	4.2	3.004	367.914	16.4
2H2037				0.738	104.848	4.0	3.001	370.915	16.4
1H2038				0.738	105.586	4.0	2.902	373.817	15.9
2H2038				0.714	106.300	3.9	2.900	376.717	15.9
1H2039				0.713	107.013	3.9	2.806	379.523	15.4
2H2039				0.690	107.703	3.8	2.806	382.329	15.4
1H2040				0.691	108.394	3.8	2.731	385.060	15.0
2H2040				0.672	109.066	3.7	2.718	387.778	14.9
1H2041				0.669	109.735	3.7	2.632	390.410	14.4
2H2041				0.648	110.383	3.5	2.635	393.045	14.4
1H2042				0.649	111.032	3.6	2.553	395.598	14.0
2H2042				0.629	111.661	3.4	2.557	398.155	14.0
1H2043				0.630	112.291	3.4	2.478	400.633	13.6
2H2043				0.611	112.902	3.3	2.483	403.116	13.6
1H2044				0.612	113.514	3.4	2.421	405.537	13.3
2H2044				0.597	114.111	3.3	2.414	407.951	13.2
1H2045				0.595	114.706	3.3	2.342	410.293	12.8
2H2045				0.578	115.284	3.2	2.348	412.641	12.9
1H2046				0.579	115.863	3.2	2.279	414.920	12.5





	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
2H2011	34.487	34.487	188.8	34.500	34.500	188.9	188.9	59.970	59.970	59.970	328.4
1H2012	24.980	59.467	136.8	32.820	67.320	179.7	179.7	52.016	111.986	111.986	284.8
2H2012	19.372	78.839	106.1	30.249	97.569	165.6	165.6	46.828	158.814	158.814	256.4
1H2013	14.625	93.464	80.1	27.244	124.813	149.2	149.2	41.528	200.342	200.342	227.4
2H2013	11.413	104.877	62.5	25.454	150.267	139.4	139.4	38.433	238.775	238.775	210.4
1H2014	8.616	113.493	47.2	23.090	173.357	126.4	126.4	34.697	273.472	273.472	190.0
2H2014	6.724	120.217	36.8	21.714	195.071	118.9	118.9	32.592	306.064	306.064	178.5
1H2015	5.076	125.293	27.8	19.818	214.889	108.5	108.5	29.796	335.860	335.860	163.2
2H2015	3.961	129.254	21.7	18.742	233.631	102.6	102.6	28.293	364.153	364.153	154.9
1H2016	3.005	132.259	16.5	17.287	250.918	94.7	94.7	26.249	390.402	390.402	143.7
2H2016	2.330	134.589	12.8	16.335	267.253	89.4	89.4	24.988	415.390	415.390	136.8
1H2017	1.759	136.348	9.6	15.055	282.308	82.4	82.4	23.227	438.617	438.617	127.2
2H2017	1.373	137.721	7.5	14.369	296.677	78.7	78.7	22.381	460.998	460.998	122.6
1H2018	1.036	138.757	5.7	13.296	309.973	72.8	72.8	20.924	481.922	481.922	114.6
2H2018	0.809	139.566	4.4	12.737	322.710	69.7	69.7	20.266	502.188	502.188	111.0
1H2019	0.611	140.177	3.3	11.828	334.538	64.8	64.8	19.036	521.224	521.224	104.2
2H2019	0.477	140.654	2.6	11.369	345.907	62.3	62.3	18.517	539.741	539.741	101.4
1H2020	0.361	141.015	2.0	10.647	356.554	58.3	58.3	17.556	557.297	557.297	96.1
2H2020	0.280	141.295	1.5	10.206	366.760	55.9	55.9	17.042	574.339	574.339	93.3
1H2021	0.212	141.507	1.2	9.534	376.294	52.2	52.2	16.124	590.463	590.463	88.3
2H2021	0.165	141.672	0.9	9.216	385.510	50.5	50.5	15.788	606.251	606.251	86.5
1H2022	0.125	141.797	0.7	8.631	394.141	47.3	47.3	14.979	621.230	621.230	82.0
2H2022	0.097	141.894	0.5	8.363	402.504	45.8	45.8	14.706	635.936	635.936	80.5
1H2023	0.073	141.967	0.4	7.851	410.355	43.0	43.0	13.986	649.922	649.922	76.6
2H2023	0.057	142.024	0.3	7.624	417.979	41.7	41.7	13.762	663.684	663.684	75.4
1H2024	0.043	142.067	0.2	7.210	425.189	39.5	39.5	13.189	676.873	676.873	72.2
2H2024	0.034	142.101	0.2	6.976	432.165	38.2	38.2	12.931	689.804	689.804	70.8
1H2025	0.025	142.126	0.1	6.575	438.740	36.0	36.0	12.348	702.152	702.152	67.6
2H2025	0.017	142.143	0.1	6.409	445.149	35.1	35.1	12.196	714.348	714.348	66.8
1H2026				6.051	451.200	33.1	33.1	11.665	726.013	726.013	63.9
2H2026				5.909	457.109	32.4	32.4	11.540	737.553	737.553	63.2
1H2027				5.588	462.697	30.6	30.6	11.054	748.607	748.607	60.5
2H2027				5.465	468.162	29.9	29.9	10.951	759.558	759.558	60.0
1H2028				5.204	473.366	28.5	28.5	10.561	770.119	770.119	57.8
2H2028				5.068	478.434	27.8	27.8	10.417	780.536	780.536	57.0

Source:

	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
1H2029				4.807	483.241	26.3	10.005	790.541	54.8		
2H2029				4.714	487.955	25.8	9.935	800.476	54.4		
1H2030				4.476	492.431	24.5	9.552	810.028	52.3		
2H2030				4.396	496.827	24.1	9.495	819.523	52.0		
1H2031				4.179	501.006	22.9	9.138	828.661	50.0		
2H2031				4.108	505.114	22.5	9.093	837.754	49.8		
1H2032				3.932	509.046	21.5	8.807	846.561	48.2		
2H2032				3.848	512.894	21.1	8.722	855.283	47.8		
1H2033				3.666	516.560	20.1	8.409	863.692	46.0		
2H2033				3.612	520.172	19.8	8.382	872.074	45.9		
1H2034				3.445	523.617	18.9	8.087	880.161	44.3		
2H2034				3.397	527.014	18.6	8.066	888.227	44.2		
1H2035				3.243	530.257	17.8	7.789	896.016	42.7		
2H2035				3.201	533.458	17.5	7.774	903.790	42.6		
1H2036				3.075	536.533	16.8	7.552	911.342	41.4		
2H2036				3.021	539.554	16.5	7.502	918.844	41.1		
1H2037				2.889	542.443	15.8	7.253	926.097	39.7		
2H2037				2.856	545.299	15.6	7.248	933.345	39.7		
1H2038				2.733	548.032	15.0	7.012	940.357	38.4		
2H2038				2.704	550.736	14.8	7.011	947.368	38.4		
1H2039				2.590	553.326	14.2	6.786	954.154	37.2		
2H2039				2.564	555.890	14.0	6.789	960.943	37.2		
1H2040				2.471	558.361	13.5	6.611	967.554	36.2		
2H2040				2.434	560.795	13.3	6.581	974.135	36.0		
1H2041				2.334	563.129	12.8	6.376	980.511	34.9		
2H2041				2.314	565.443	12.7	6.385	986.896	35.0		
1H2042				2.221	567.664	12.2	6.189	993.085	33.9		
2H2042				2.203	569.867	12.1	6.200	999.285	33.9		
1H2043				2.115	571.982	11.6	6.012	1005.29	32.9		
2H2043				2.100	574.082	11.5	6.026	1011.32	33.0		
1H2044				2.028	576.110	11.1	5.878	1017.20	32.2		
2H2044				2.003	578.113	11.0	5.861	1023.06	32.1		
1H2045				1.926	580.039	10.5	5.688	1028.75	31.1		
2H2045				1.913	581.952	10.5	5.705	1034.45	31.2		
1H2046				1.840	583.792	10.1	5.539	1039.99	30.3		





	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
2H2011	28.49	156.0	28.49	156.0	28.49	156.0	28.49	156.0
1H2012	24.92	136.5	24.91	136.4	27.00	147.8	27.00	147.8
2H2012	23.72	129.9	23.93	131.0	26.20	143.5	26.20	143.5
1H2013	21.97	120.3	22.40	122.7	24.78	135.7	24.78	135.7
2H2013	21.03	120.13	21.70	121.44	24.25	132.8	24.25	132.8
1H2014	19.47	139.60	20.36	141.80	23.00	126.0	23.00	126.0
2H2014	18.64	158.23	19.77	161.57	22.58	123.6	22.58	123.6
1H2015	17.26	175.49	18.59	180.15	21.47	117.5	21.47	117.5
2H2015	16.52	192.01	18.08	198.23	21.12	115.6	21.12	115.6
1H2016	15.38	207.39	17.12	215.35	20.23	110.8	20.23	110.8
2H2016	14.64	222.03	16.59	231.94	19.83	108.6	19.83	108.6
1H2017	13.56	235.59	15.66	247.61	18.93	103.7	18.93	103.7
2H2017	12.97	248.56	15.29	262.89	18.70	102.4	18.70	102.4
1H2018	12.02	260.58	14.45	277.35	17.88	97.9	17.88	97.9
2H2018	11.50	272.08	14.13	291.48	17.68	96.8	17.68	96.8
1H2019	10.65	282.73	13.38	304.86	16.94	92.7	16.94	92.7
2H2019	10.19	292.92	13.10	317.96	16.78	91.9	16.78	91.9
1H2020	9.49	302.41	12.49	330.45	16.18	88.6	16.18	88.6
2H2020	9.03	311.44	12.18	342.63	15.95	87.4	15.95	87.4
1H2021	8.37	319.81	11.56	354.19	15.32	83.9	15.32	83.9
2H2021	8.01	327.82	11.35	365.54	15.21	83.3	15.21	83.3
1H2022	7.42	335.23	10.79	376.33	14.62	80.1	14.62	80.1
2H2022	7.10	342.33	10.60	386.93	14.53	79.6	14.53	79.6
1H2023	6.57	348.90	10.09	397.02	13.99	76.6	13.99	76.6
2H2023	6.29	355.19	9.93	406.95	13.91	76.2	13.91	76.2
1H2024	5.86	361.05	9.51	416.46	13.48	73.8	13.48	73.8
2H2024	5.57	366.62	9.32	425.77	13.34	73.1	13.34	73.1
1H2025	5.16	371.79	8.88	434.66	12.86	70.4	12.86	70.4
2H2025	4.94	376.73	8.76	443.42	12.82	70.2	12.82	70.2
1H2026	4.58	381.30	8.36	451.77	12.37	67.7	12.37	67.7
2H2026	4.38	385.68	8.25	460.02	12.34	67.5	12.34	67.5
1H2027	4.06	389.74	7.88	467.90	11.91	65.2	11.91	65.2
2H2027	3.88	393.62	7.78	475.69	11.89	65.1	11.89	65.1
1H2028	3.62	397.24	7.48	483.17	11.55	63.2	11.55	63.2
2H2028	3.44	400.68	7.36	490.53	11.47	62.8	11.47	62.8

Source:

	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
1H2029	3.19	403.86	17.4	7.04	497.56	38.5	11.09	620.66
2H2029	3.05	406.91	16.7	6.96	504.53	38.1	11.08	631.74
1H2030	2.82	409.74	15.5	6.67	511.19	36.5	10.72	642.46
2H2030	2.70	412.44	14.8	6.60	517.79	36.1	10.72	653.17
1H2031	2.50	414.94	13.7	6.33	524.12	34.6	10.37	663.54
2H2031	2.40	417.34	13.1	6.27	530.38	34.3	10.38	673.92
1H2032	2.23	419.57	12.2	6.04	536.42	33.1	10.10	684.02
2H2032	2.12	421.69	11.6	5.96	542.38	32.6	10.06	694.08
1H2033	1.97	423.66	10.8	5.71	548.09	31.3	9.74	703.82
2H2033	1.88	425.54	10.3	5.67	553.76	31.0	9.76	713.57
1H2034	1.74	427.28	9.5	5.44	559.20	29.8	9.46	723.03
2H2034	1.67	428.95	9.1	5.40	564.60	29.6	9.47	732.50
1H2035	1.55	430.50	8.5	5.19	569.79	28.4	9.18	741.68
2H2035	1.48	431.97	8.1	5.15	574.94	28.2	9.21	750.89
1H2036	1.38	433.35	7.5	4.98	579.92	27.3	8.98	759.87
2H2036	1.31	434.66	7.2	4.92	584.84	26.9	8.95	768.82
1H2037	1.21	435.87	6.6	4.73	589.57	25.9	8.69	777.50
2H2037	1.16	437.03	6.4	4.70	594.27	25.7	8.71	786.22
1H2038	1.08	438.11	5.9	4.53	598.79	24.8	8.46	794.68
2H2038	1.03	439.14	5.6	4.50	603.29	24.6	8.49	803.16
1H2039	0.95	440.09	5.2	4.33	607.63	23.7	8.24	811.40
2H2039	0.91	441.00	5.0	4.31	611.94	23.6	8.27	819.68
1H2040	0.85	441.85	4.6	4.17	616.11	22.9	8.08	827.75
2H2040	0.81	442.66	4.4	4.13	620.24	22.6	8.07	835.82
1H2041	0.75	443.41	4.1	3.98	624.22	21.8	7.84	843.66
2H2041	0.72	444.13	3.9	3.97	628.19	21.7	7.87	851.53
1H2042	0.66	444.79	3.6	3.82	632.01	20.9	7.65	859.19
2H2042	0.64	445.42	3.5	3.81	635.82	20.8	7.69	866.87
1H2043	0.59	446.01	3.2	3.67	639.49	20.1	7.47	874.35
2H2043	0.56	446.58	3.1	3.66	643.15	20.0	7.51	881.86
1H2044	0.52	447.10	2.9	3.55	646.70	19.4	7.34	889.20
2H2044	0.50	447.60	2.7	3.52	650.22	19.3	7.34	896.54
1H2045	0.46	448.06	2.5	3.40	653.61	18.6	7.14	903.68
2H2045	0.44	448.50	2.4	3.39	657.00	18.6	7.18	910.86
1H2046	0.41	448.91	2.2	3.27	660.27	17.9	6.99	917.85



	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	6.0	6.0	33.1	7.9	7.9	43.2	10.7	10.7	58.4
1H2012	5.4	11.4	29.4	7.2	15.1	39.5	10.1	20.7	55.2
2H2012	4.8	16.2	26.0	6.6	21.7	36.1	9.5	30.3	52.3
1H2013	4.2	20.4	23.1	6.0	27.7	33.1	9.1	39.3	49.6
2H2013	3.7	24.1	20.5	5.6	33.3	30.4	8.6	48.0	47.1
1H2014	3.3	27.4	18.2	5.1	38.4	27.9	8.2	56.1	44.8
2H2014	2.9	30.4	16.1	4.7	43.1	25.7	7.8	63.9	42.7
1H2015				4.3	47.4	23.7	7.4	71.4	40.7
2H2015				4.0	51.4	21.8	7.1	78.5	38.8
1H2016				3.7	55.1	20.1	6.8	85.2	37.1
2H2016				3.4	58.5	18.6	6.5	91.7	35.5
1H2017				3.1	61.6	17.2	6.2	97.9	34.0
2H2017				2.9	64.5	15.9	5.9	103.9	32.6
1H2018							5.7	109.6	31.2
2H2018							5.5	115.1	30.0
1H2019							5.3	120.3	28.8
2H2019							5.1	125.4	27.7
1H2020							4.9	130.2	26.7
2H2020							4.7	134.9	25.7
1H2021							4.5	139.4	24.7
2H2021							4.4	143.8	23.9
1H2022							4.2	148.0	23.0
2H2022							4.1	152.1	22.2
1H2023							3.9	156.0	21.5
2H2023							3.8	159.8	20.8
1H2024							3.7	163.4	20.1
2H2024							3.5	167.0	19.4
1H2025							3.4	170.4	18.8
2H2025							3.3	173.7	18.2
1H2026							3.2	177.0	17.7
2H2026							3.1	180.1	17.1
1H2027							3.0	183.1	16.6
2H2027							2.9	186.1	16.1
1H2028									
2H2028									

Source:

Table 2.21



**senergy**      **Storrington**

**Competent Person's Report**

	1P	1P	1P	2P	2P	2P	2P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
2H2011	5.847	5.847	32.0	7.530	7.530	41.2	9.203	9.203	50.4
1H2012	4.758	10.605	26.1	6.146	13.676	33.7	7.512	16.715	41.1
2H2012	3.957	14.562	21.7	5.128	18.804	28.1	6.268	22.983	34.3
1H2013	3.204	17.766	17.5	4.165	22.969	22.8	5.091	28.074	27.9
2H2013	2.681	20.447	14.7	3.496	26.465	19.1	4.273	32.347	23.4
1H2014	2.170	22.617	11.9	2.840	29.305	15.6	3.471	35.818	19.0
2H2014	1.816	24.433	9.9	2.384	31.689	13.1	2.914	38.732	16.0
1H2015	1.470	25.903	8.0	1.936	33.625	10.6	2.366	41.098	13.0
2H2015	1.230	27.133	6.7	1.625	35.250	8.9	1.986	43.084	10.9
1H2016	1.001	28.134	5.5	1.327	36.577	7.3	1.622	44.706	8.9
2H2016	0.833	28.967	4.6	1.107	37.684	6.1	1.353	46.059	7.4
1H2017	0.674	29.641	3.7	0.899	38.583	4.9	1.099	47.158	6.0
2H2017	0.564	30.205	3.1	0.755	39.338	4.1	0.922	48.080	5.0
1H2018	0.457	30.662	2.5	0.613	39.951	3.4	0.749	48.829	4.1
2H2018	0.382	31.044	2.1	0.515	40.466	2.8	0.629	49.458	3.4
1H2019	0.309	31.353	1.7	0.418	40.884	2.3	0.511	49.969	2.8
2H2019	0.259	31.612	1.4	0.351	41.235	1.9	0.429	50.398	2.3
1H2020	0.211	31.823	1.2	0.286	41.521	1.6	0.350	50.748	1.9
2H2020	0.175	31.998	1.0	0.239	41.760	1.3	0.292	51.040	1.6
1H2021	0.142	32.140	0.8	0.194	41.954	1.1	0.237	51.277	1.3
2H2021	0.119	32.259	0.7	0.163	42.117	0.9	0.199	51.476	1.1
1H2022	0.096	32.355	0.5	0.132	42.249	0.7	0.162	51.638	0.9
2H2022	0.080	32.435	0.4	0.111	42.360	0.6	0.136	51.774	0.7
1H2023	0.065	32.500	0.4	0.090	42.450	0.5	0.110	51.884	0.6
2H2023	0.054	32.554	0.3	0.076	42.526	0.4	0.093	51.977	0.5
1H2024	0.044	32.598	0.2	0.062	42.588	0.3	0.076	52.053	0.4
2H2024	0.037	32.635	0.2	0.052	42.640	0.3	0.063	52.116	0.3
1H2025	0.030	32.665	0.2	0.042	42.682	0.2	0.051	52.167	0.3
2H2025	0.025	32.690	0.1	0.035	42.717	0.2	0.043	52.210	0.2
1H2026	0.020	32.710	0.1	0.029	42.746	0.2	0.035	52.245	0.2
2H2026	0.003	32.713	0.0	0.024	42.770	0.1	0.029	52.274	0.2
1H2027				0.019	42.789	0.1	0.024	52.298	0.1
2H2027							0.020	52.318	0.1
1H2028									
2H2028									

Source:

Table 2.22



	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS
2H2011	96.6	529.1	96.6	529.1	96.6	529.1	96.6	529.1	96.6
1H2012	60.7	157.3	332.5	70.4	167.0	385.3	80.0	176.6	438.1
2H2012	58.2	215.5	318.4	59.8	226.8	327.6	61.5	238.1	336.8
1H2013	54.2	269.7	296.8	55.5	282.3	303.8	58.7	296.8	321.2
2H2013	52.2	321.9	285.9	53.9	336.2	295.2	57.9	354.7	316.8
1H2014	48.7	370.6	266.5	50.7	386.9	277.8	55.3	409.9	302.7
2H2014	46.9	417.4	256.7	49.4	436.3	270.5	54.6	464.5	299.1
1H2015	43.7	461.1	239.2	46.6	482.9	255.1	52.3	516.8	286.2
2H2015	42.1	503.2	230.4	45.4	528.4	248.8	51.7	568.5	283.2
1H2016	39.4	542.7	215.9	43.2	571.5	236.3	49.8	618.4	272.9
2H2016	37.8	580.4	206.8	41.9	613.5	229.6	49.1	667.5	268.9
1H2017	35.2	615.6	192.8	39.7	653.1	217.2	47.1	714.6	258.0
2H2017	33.9	649.6	185.7	38.8	692.0	212.6	46.8	761.3	256.0
1H2018	31.6	681.2	173.1	36.8	728.8	201.4	44.9	806.3	245.9
2H2018	30.4	711.6	166.7	36.0	764.8	197.4	44.6	850.9	244.3
1H2019	28.4	740.0	155.4	34.2	799.0	187.3	42.9	893.8	234.9
2H2019	27.3	767.3	149.7	33.6	832.5	183.7	42.7	936.4	233.6
1H2020	25.6	792.9	140.3	32.0	864.6	175.5	41.3	977.7	226.1
2H2020	24.5	817.5	134.3	31.3	895.9	171.4	40.9	1018.6	223.8
1H2021	22.9	840.3	125.2	29.8	925.7	163.0	39.4	1058.0	215.6
2H2021	22.0	862.4	120.6	29.3	955.0	160.4	39.2	1097.2	214.8
1H2022	20.5	882.9	112.4	27.9	982.8	152.7	37.8	1135.0	207.1
2H2022	19.8	902.7	108.3	27.5	1010.3	150.3	37.7	1172.8	206.5
1H2023	18.4	921.1	100.9	26.2	1036.5	143.3	36.4	1209.2	199.3
2H2023	17.8	938.9	97.2	25.8	1062.2	141.2	36.3	1245.5	198.8
1H2024	16.6	955.5	91.1	24.7	1087.0	135.4	35.3	1280.7	193.0
2H2024	15.9	971.4	87.3	24.3	1111.2	132.9	35.0	1315.7	191.7
1H2025	14.9	986.3	81.3	23.2	1134.4	126.9	33.8	1349.5	185.2
2H2025	14.3	1000.6	78.3	22.9	1157.3	125.3	33.8	1383.3	185.0
1H2026	13.3	1013.9	73.0	21.9	1179.1	119.7	32.7	1416.0	178.9
2H2026	12.8	1026.8	70.3	21.6	1200.7	118.3	32.7	1448.7	178.8
1H2027	12.0	1038.8	65.6	20.7	1221.4	113.1	31.6	1480.3	173.0
2H2027	11.5	1050.3	63.2	20.4	1241.8	111.9	31.6	1511.9	173.0
1H2028	10.8	1061.1	59.2	19.7	1261.5	107.7	30.8	1542.6	168.4
2H2028	10.4	1071.5	56.7	19.4	1280.9	106.0	30.6	1573.2	167.6

Source:

	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS
1H2029	9.6	1081.1	52.8	18.5	1299.4	101.5	29.6	1602.9	162.3
2H2029	9.3	1090.4	50.9	18.4	1317.8	100.5	29.7	1632.5	162.5
1H2030	8.7	1099.1	47.4	17.6	1335.4	96.4	28.8	1661.3	157.4
2H2030	8.3	1107.4	45.7	17.4	1352.8	95.5	28.8	1690.1	157.7
1H2031	7.8	1115.2	42.6	16.7	1369.5	91.6	27.9	1718.0	152.9
2H2031	7.5	1122.7	41.0	16.6	1386.1	90.8	28.0	1746.0	153.2
1H2032	7.0	1129.7	38.4	16.0	1402.1	87.7	27.3	1773.2	149.4
2H2032	6.7	1136.4	36.8	15.8	1417.9	86.5	27.2	1800.4	148.9
1H2033	6.3	1142.7	34.3	15.2	1433.1	83.1	26.4	1826.8	144.4
2H2033	6.0	1148.7	33.1	15.1	1448.1	82.5	26.5	1853.3	144.8
1H2034	5.6	1154.3	30.8	14.5	1462.6	79.2	25.7	1878.9	140.6
2H2034	5.4	1159.8	29.7	14.4	1477.0	78.7	25.8	1904.7	141.0
1H2035	5.1	1164.8	27.7	13.8	1490.8	75.7	25.0	1929.7	136.9
2H2035	4.9	1169.7	26.6	13.7	1504.5	75.2	25.1	1954.8	137.4
1H2036	4.6	1174.2	25.0	13.3	1517.8	72.7	24.5	1979.3	134.2
2H2036	4.4	1178.6	23.9	13.1	1531.0	71.9	24.5	2003.8	133.9
1H2037	4.1	1182.7	22.3	12.6	1543.6	69.2	23.8	2027.5	130.1
2H2037	3.9	1186.6	21.5	12.6	1556.2	68.9	23.9	2051.4	130.7
1H2038	3.7	1190.3	20.0	12.1	1568.3	66.3	23.2	2074.6	127.0
2H2038	3.5	1193.8	19.3	12.1	1580.3	66.0	23.3	2097.9	127.5
1H2039	3.3	1197.1	18.0	11.6	1592.0	63.6	22.6	2120.5	124.0
2H2039	3.2	1200.2	17.3	11.6	1603.5	63.3	22.7	2143.3	124.6
1H2040	3.0	1203.2	16.2	11.2	1614.7	61.3	22.2	2165.5	121.8
2H2040	2.8	1206.0	15.5	11.1	1625.8	60.8	22.2	2187.7	121.7
1H2041	2.6	1208.7	14.5	10.7	1636.5	58.6	21.6	2209.3	118.4
2H2041	2.5	1211.2	13.9	10.7	1647.2	58.4	21.7	2231.1	119.0
1H2042	2.4	1213.6	13.0	10.3	1657.5	56.3	21.1	2252.2	115.8
2H2042	2.3	1215.9	12.5	10.3	1667.7	56.1	21.3	2273.5	116.4
1H2043	2.1	1218.0	11.7	9.9	1677.6	54.2	20.7	2294.2	113.3
2H2043	2.1	1220.0	11.2	9.9	1687.5	54.0	20.8	2315.0	113.9
1H2044	1.9	1222.0	10.5	9.6	1697.0	52.4	20.4	2335.3	111.5
2H2044	1.8	1223.8	10.1	9.5	1706.5	52.0	20.4	2355.7	111.5
1H2045	1.7	1225.5	9.4	9.2	1715.7	50.2	19.8	2375.5	108.6
2H2045	1.7	1227.2	9.1	9.2	1724.9	50.1	20.0	2395.5	109.3
1H2046	1.3	1228.5	7.1	7.4	1732.2	40.4	16.2	2411.7	88.8



## senergy Gas Profiles Gainsborough/Beckingham

Competent Person's Report

	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MMscf	MMscf	MMscf/d	MMscf	MMscf	MMscf/d	MMscf	MMscf	MMscf/d
2H2011	383.3	383.3	2.1	383.3	383.3	2.1	383.3	383.3	2.1
1H2012	383.3	766.5	2.1	383.3	766.5	2.1	383.3	766.5	2.1
2H2012	383.3	1149.8	2.1	383.3	1149.8	2.1	383.3	1149.8	2.1
1H2013	383.3	1533.0	2.1	383.3	1533.0	2.1	383.3	1533.0	2.1
2H2013	383.3	1916.3	2.1	383.3	1916.3	2.1	383.3	1916.3	2.1
1H2014	383.3	2299.5	2.1	383.3	2299.5	2.1	383.3	2299.5	2.1
2H2014	383.3	2682.8	2.1	383.3	2682.8	2.1	383.3	2682.8	2.1
1H2015	383.3	3066.0	2.1	383.3	3066.0	2.1	383.3	3066.0	2.1
2H2015	383.3	3449.3	2.1	383.3	3449.3	2.1	383.3	3449.3	2.1
1H2016	383.3	3832.5	2.1	383.3	3832.5	2.1	383.3	3832.5	2.1
2H2016	383.3	4215.8	2.1	383.3	4215.8	2.1	383.3	4215.8	2.1
1H2017				383.3	4599.0	2.1	383.3	4599.0	2.1
2H2017				383.3	4982.3	2.1	383.3	4982.3	2.1
1H2018				383.3	5365.5	2.1	383.3	5365.5	2.1
2H2018				383.3	5748.8	2.1	383.3	5748.8	2.1
1H2019				383.3	6132.0	2.1	383.3	6132.0	2.1
2H2019				383.3	6515.3	2.1	383.3	6515.3	2.1
1H2020							383.3	6898.5	2.1
2H2020							383.3	7281.8	2.1
1H2021							383.3	7665.0	2.1
2H2021									
1H2022									
2H2022									
1H2023									
2H2023									
1H2024									
2H2024									
1H2025									
2H2025									
1H2026									
2H2026									
1H2027									
2H2027									
1H2028									
2H2028									

Source:



	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	1.057	1.057	34.7	1.175	1.175	1.175	38.6	1.356	1.356	44.5
Aug-11	1.054	2.111	34.6	1.171	2.346	38.5	38.5	1.353	2.709	44.5
Sep-11	1.051	3.163	34.5	1.168	3.514	38.4	38.4	1.351	4.060	44.4
Oct-11	1.049	4.211	34.5	1.165	4.679	38.3	38.3	1.349	5.409	44.3
Nov-11	1.046	5.257	34.4	1.162	5.841	38.2	38.2	1.347	6.756	44.2
Dec-11	1.043	6.300	34.3	1.158	6.999	38.1	38.1	1.344	8.100	44.2
Jan-12	1.037	7.337	34.1	1.158	8.157	38.0	38.0	1.342	9.442	44.1
Feb-12	1.034	8.370	34.0	1.155	9.312	37.9	37.9	1.340	10.782	44.0
Mar-12	1.031	9.401	33.9	1.152	10.464	37.8	37.8	1.338	12.120	44.0
Apr-12	1.028	10.429	33.8	1.149	11.613	37.7	37.7	1.336	13.456	43.9
May-12	1.025	11.455	33.7	1.146	12.758	37.6	37.6	1.333	14.789	43.8
Jun-12	1.023	12.470	33.6	1.142	13.900	37.5	37.5	1.331	16.120	43.7
Jul-12	1.016	13.493	33.4	1.142	15.042	37.5	37.5	1.329	17.449	43.7
Aug-12	1.013	14.507	33.3	1.139	16.181	37.4	37.4	1.327	18.775	43.6
Sep-12	1.010	15.517	33.2	1.136	17.316	37.3	37.3	1.324	20.100	43.5
Oct-12	1.008	16.524	33.1	1.132	18.449	37.2	37.2	1.322	21.422	43.4
Nov-12	1.005	17.529	33.0	1.129	19.578	37.1	37.1	1.320	22.742	43.4
Dec-12	1.002	18.532	32.9	1.126	20.704	37.0	37.0	1.318	24.059	43.3
Jan-13	0.996	19.527	32.7	1.126	21.830	37.0	37.0	1.316	25.375	43.2
Feb-13	0.993	20.521	32.6	1.123	22.953	36.9	36.9	1.313	26.688	43.2
Mar-13	0.991	21.511	32.5	1.120	24.073	36.8	36.8	1.311	28.000	43.1
Apr-13	0.988	22.499	32.5	1.117	25.190	36.7	36.7	1.309	29.309	43.0
May-13	0.985	23.485	32.4	1.114	26.304	36.6	36.6	1.307	30.616	42.9
Jun-13	0.983	24.467	32.3	1.111	27.415	36.5	36.5	1.305	31.920	42.9
Jul-13	0.976	25.443	32.1	1.110	28.525	36.5	36.5	1.303	33.223	42.8
Aug-13	0.973	26.417	32.0	1.107	29.632	36.4	36.4	1.301	34.524	42.7
Sep-13	0.971	27.388	31.9	1.104	30.736	36.3	36.3	1.298	35.822	42.7
Oct-13	0.968	28.356	31.8	1.101	31.838	36.2	36.2	1.296	37.118	42.6
Nov-13	0.966	29.321	31.7	1.098	32.936	36.1	36.1	1.294	38.412	42.5
Dec-13	0.963	30.284	31.6	1.095	34.031	36.0	36.0	1.292	39.704	42.4

Source: Senergy



	1P		1P		2P		2P		3P		3P	
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
Jul-11	1.641	53.9	1.641	53.9	2.946	96.8	2.946	96.8	3.571	117.3	3.571	117.3
Aug-11	1.596	52.4	3.237	52.4	2.900	95.3	5.845	95.3	3.528	115.9	7.099	115.9
Sep-11	1.552	51.0	4.789	51.0	2.854	93.8	8.699	93.8	3.486	114.5	10.585	114.5
Oct-11	1.511	49.6	6.300	49.6	2.810	92.3	11.510	92.3	3.446	113.2	14.031	113.2
Nov-11	1.470	48.3	7.770	48.3	2.766	90.9	14.276	90.9	3.405	111.9	17.435	111.9
Dec-11	1.430	47.0	9.200	47.0	2.724	89.5	17.000	89.5	3.365	110.6	20.801	110.6
Jan-12	1.370	45.0	10.571	45.0	2.690	88.4	19.691	88.4	3.302	108.5	24.102	108.5
Feb-12	1.333	43.8	11.904	43.8	2.648	87.0	22.339	87.0	3.262	107.2	27.364	107.2
Mar-12	1.299	42.7	13.202	42.7	2.609	85.7	24.948	85.7	3.226	106.0	30.590	106.0
Apr-12	1.263	41.5	14.465	41.5	2.568	84.4	27.516	84.4	3.187	104.7	33.777	104.7
May-12	1.229	40.4	15.695	40.4	2.529	83.1	30.045	83.1	3.150	103.5	36.928	103.5
Jun-12	1.196	39.3	16.890	39.3	2.489	81.8	32.534	81.8	3.113	102.3	40.040	102.3
Jul-12	1.145	37.6	18.035	37.6	2.466	81.0	35.000	81.0	3.083	100.6	43.103	100.6
Aug-12	1.114	36.6	19.149	36.6	2.427	79.8	37.428	79.8	3.026	99.4	46.130	99.4
Sep-12	1.083	35.6	20.232	35.6	2.389	78.5	39.817	78.5	2.990	98.2	49.120	98.2
Oct-12	1.054	34.6	21.286	34.6	2.353	77.3	42.170	77.3	2.956	97.1	52.075	97.1
Nov-12	1.025	33.7	22.312	33.7	2.316	76.1	44.486	76.1	2.920	95.9	54.996	95.9
Dec-12	0.998	32.8	23.310	32.8	2.281	74.9	46.767	74.9	2.887	94.8	57.882	94.8
Jan-13	0.956	31.4	24.266	31.4	2.268	74.5	49.034	74.5	2.849	93.6	60.732	93.6
Feb-13	0.930	30.5	25.195	30.5	2.232	73.3	51.266	73.3	2.815	92.5	63.547	92.5
Mar-13	0.907	29.8	26.102	29.8	2.200	72.3	53.467	72.3	2.785	91.5	66.331	91.5
Apr-13	0.882	29.0	26.984	29.0	2.166	71.2	55.633	71.2	2.751	90.4	69.083	90.4
May-13	0.858	28.2	27.842	28.2	2.133	70.1	57.765	70.1	2.720	89.4	71.803	89.4
Jun-13	0.835	27.4	28.676	27.4	2.099	69.0	59.865	69.0	2.687	88.3	74.490	88.3
Jul-13	0.799	26.2	29.475	26.2	2.093	68.8	61.958	68.8	2.659	87.3	77.148	87.3
Aug-13	0.777	25.5	30.252	25.5	2.060	67.7	64.017	67.7	2.627	86.3	79.775	86.3
Sep-13	0.756	24.8	31.008	24.8	2.027	66.6	66.045	66.6	2.595	85.3	82.371	85.3
Oct-13	0.736	24.2	31.744	24.2	1.997	65.6	68.041	65.6	2.565	84.3	84.936	84.3
Nov-13	0.715	23.5	32.459	23.5	1.965	64.6	70.006	64.6	2.535	83.3	87.471	83.3
Dec-13	0.696	22.9	33.155	22.9	1.935	63.6	71.942	63.6	2.505	82.3	89.976	82.3

Source: Senergy

**Table 2.27**

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd
Jul-11	1.388	1.388	45.6	1.789	1.789	1.789	58.8	2.452	2.452	2.452	80.6
Aug-11	1.379	2.767	45.3	1.780	3.569	58.5	58.5	2.445	4.897	80.3	80.3
Sep-11	1.371	4.138	45.0	1.771	5.340	58.2	58.2	2.437	7.334	80.1	80.1
Oct-11	1.362	5.500	44.8	1.762	7.102	57.9	57.9	2.430	9.763	79.8	79.8
Nov-11	1.354	6.854	44.5	1.753	8.856	57.6	57.6	2.422	12.185	79.6	79.6
Dec-11	1.346	8.200	44.2	1.745	10.600	57.3	57.3	2.415	14.600	79.3	79.3
Jan-12	1.323	9.523	43.5	1.730	12.330	56.8	56.8	2.402	17.002	78.9	78.9
Feb-12	1.314	10.837	43.2	1.721	14.052	56.6	56.6	2.394	19.396	78.7	78.7
Mar-12	1.307	12.144	42.9	1.713	15.765	56.3	56.3	2.387	21.783	78.4	78.4
Apr-12	1.299	13.443	42.7	1.704	17.469	56.0	56.0	2.380	24.162	78.2	78.2
May-12	1.291	14.734	42.4	1.696	19.165	55.7	55.7	2.372	26.535	77.9	77.9
Jun-12	1.283	16.017	42.2	1.687	20.852	55.4	55.4	2.365	28.899	77.7	77.7
Jul-12	1.260	17.277	41.4	1.674	22.526	55.0	55.0	2.353	31.252	77.3	77.3
Aug-12	1.253	18.530	41.2	1.665	24.192	54.7	54.7	2.346	33.598	77.1	77.1
Sep-12	1.245	19.775	40.9	1.657	25.848	54.4	54.4	2.338	35.936	76.8	76.8
Oct-12	1.238	21.012	40.7	1.649	27.497	54.2	54.2	2.331	38.267	76.6	76.6
Nov-12	1.230	22.242	40.4	1.640	29.137	53.9	53.9	2.324	40.591	76.3	76.3
Dec-12	1.223	23.465	40.2	1.632	30.769	53.6	53.6	2.317	42.908	76.1	76.1
Jan-13	1.201	24.685	39.5	1.620	32.389	53.2	53.2	2.306	45.214	75.8	75.8
Feb-13	1.193	25.859	39.2	1.612	34.001	52.9	52.9	2.299	47.513	75.5	75.5
Mar-13	1.187	27.046	39.0	1.604	35.605	52.7	52.7	2.292	49.805	75.3	75.3
Apr-13	1.179	28.225	38.7	1.596	37.201	52.4	52.4	2.285	52.090	75.1	75.1
May-13	1.172	29.397	38.5	1.588	38.789	52.2	52.2	2.278	54.368	74.8	74.8
Jun-13	1.165	30.563	38.3	1.580	40.369	51.9	51.9	2.271	56.639	74.6	74.6
Jul-13	1.145	31.707	37.6	1.568	41.937	51.5	51.5	2.261	58.900	74.3	74.3
Aug-13	1.138	32.845	37.4	1.560	43.496	51.2	51.2	2.254	61.154	74.0	74.0
Sep-13	1.131	33.975	37.1	1.552	45.048	51.0	51.0	2.247	63.400	73.8	73.8
Oct-13	1.124	35.099	36.9	1.544	46.592	50.7	50.7	2.240	65.640	73.6	73.6
Nov-13	1.117	36.216	36.7	1.536	48.129	50.5	50.5	2.233	67.873	73.4	73.4
Dec-13	1.110	37.326	36.5	1.529	49.658	50.2	50.2	2.226	70.099	73.1	73.1

Source: Senergy



senergy

East Glentworth

Competent Person's Report

	1P		2P		3P	
	MBBLS	bopd	MBBLS	bopd	MBBLS	bopd
Jul-11	0.705	23.2	0.942	30.9	1.209	39.7
Aug-11	0.891	22.7	0.932	30.6	1.198	39.4
Sep-11	0.877	22.2	0.921	30.3	1.188	39.0
Oct-11	0.864	21.8	0.912	30.0	1.178	38.7
Nov-11	0.851	21.4	0.902	29.6	1.168	38.4
Dec-11	0.839	21.0	0.892	29.3	1.159	38.1
Jan-12	0.833	20.8	0.885	29.1	1.156	38.0
Feb-12	0.821	20.4	0.875	28.7	1.146	37.7
Mar-12	0.809	20.0	0.866	28.4	1.137	37.3
Apr-12	0.597	19.6	0.856	28.1	1.127	37.0
May-12	0.586	19.2	0.847	27.8	1.118	36.7
Jun-12	0.574	18.9	0.838	27.5	1.108	36.4
Jul-12	0.569	18.7	0.833	27.4	1.107	36.4
Aug-12	0.558	18.3	0.824	27.1	1.097	36.1
Sep-12	0.547	18.0	0.814	26.8	1.088	35.7
Oct-12	0.536	17.6	0.806	26.5	1.079	35.4
Nov-12	0.526	17.3	0.797	26.2	1.070	35.1
Dec-12	0.516	16.9	0.789	25.9	1.061	34.9
Jan-13	0.511	16.8	0.785	25.8	1.061	34.9
Feb-13	0.501	16.5	0.776	25.5	1.052	34.6
Mar-13	0.492	16.2	0.769	25.2	1.044	34.3
Apr-13	0.482	15.8	0.760	25.0	1.035	34.0
May-13	0.473	15.5	0.752	24.7	1.027	33.7
Jun-13	0.464	15.2	0.744	24.4	1.018	33.4
Jul-13	0.460	15.1	0.741	24.4	1.019	33.5
Aug-13	0.451	14.8	0.733	24.1	1.010	33.2
Sep-13	0.442	14.5	0.725	23.8	1.002	32.9
Oct-13	0.433	14.2	0.718	23.6	0.993	32.6
Nov-13	0.425	14.0	0.710	23.3	0.985	32.4
Dec-13	0.417	13.7	0.702	23.1	0.977	32.1

Source: Senergy

Table 2.29

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	MBBLS	MBBLS	bopd
Jul-11	0.061	0.061	2.0	0.068	0.068	0.068	2.2	0.148	0.148	4.9
Aug-11	0.061	0.122	2.0	0.067	0.135	2.2	0.147	0.295	4.8	
Sep-11	0.060	0.183	2.0	0.067	0.202	2.2	0.146	0.441	4.8	
Oct-11	0.060	0.243	2.0	0.066	0.268	2.2	0.145	0.585	4.8	
Nov-11	0.059	0.302	2.0	0.066	0.334	2.2	0.143	0.729	4.7	
Dec-11	0.059	0.361	1.9	0.065	0.399	2.1	0.142	0.871	4.7	
Jan-12	0.056	0.417	1.9	0.063	0.462	2.1	0.135	1.006	4.4	
Feb-12	0.056	0.473	1.8	0.062	0.524	2.0	0.134	1.140	4.4	
Mar-12	0.056	0.529	1.8	0.062	0.585	2.0	0.133	1.274	4.4	
Apr-12	0.055	0.584	1.8	0.061	0.646	2.0	0.132	1.406	4.3	
May-12	0.055	0.639	1.8	0.061	0.707	2.0	0.131	1.537	4.3	
Jun-12	0.054	0.693	1.8	0.060	0.767	2.0	0.130	1.667	4.3	
Jul-12	0.053	0.746	1.7	0.059	0.826	1.9	0.126	1.793	4.2	
Aug-12	0.053	0.799	1.7	0.059	0.885	1.9	0.125	1.919	4.1	
Sep-12	0.052	0.851	1.7	0.058	0.943	1.9	0.124	2.043	4.1	
Oct-12	0.052	0.903	1.7	0.058	1.001	1.9	0.124	2.167	4.1	
Nov-12	0.052	0.955	1.7	0.057	1.058	1.9	0.123	2.289	4.0	
Dec-12	0.051	1.006	1.7	0.057	1.115	1.9	0.122	2.411	4.0	
Jan-13	0.049	1.055	1.6	0.055	1.170	1.8	0.116	2.526	3.8	
Feb-13	0.048	1.103	1.6	0.054	1.224	1.8	0.115	2.641	3.8	
Mar-13	0.048	1.151	1.6	0.054	1.278	1.8	0.114	2.755	3.7	
Apr-13	0.048	1.199	1.6	0.053	1.331	1.8	0.113	2.868	3.7	
May-13	0.047	1.246	1.6	0.053	1.384	1.7	0.112	2.980	3.7	
Jun-13	0.047	1.293	1.5	0.053	1.437	1.7	0.111	3.091	3.7	
Jul-13	0.046	1.339	1.5	0.052	1.489	1.7	0.109	3.201	3.6	
Aug-13	0.046	1.385	1.5	0.052	1.541	1.7	0.109	3.309	3.6	
Sep-13	0.045	1.430	1.5	0.051	1.592	1.7	0.108	3.417	3.5	
Oct-13	0.045	1.475	1.5	0.051	1.643	1.7	0.107	3.524	3.5	
Nov-13	0.045	1.520	1.5	0.051	1.693	1.7	0.106	3.630	3.5	
Dec-13	0.044	1.564	1.5	0.050	1.744	1.6	0.105	3.735	3.5	

Source: Senergy



senergy

Gainsborough/Beckingham

Competent Person's Report

	1P	1P	1P	2P	2P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
Jul-11	4.846	4.846	159.2	5.492	5.492	5.492	5.492	180.4	5.492	5.492	180.4	5.492	180.4
Aug-11	4.807	9.652	157.9	5.468	10.961	179.7	5.468	179.7	5.468	10.961	179.7	5.468	179.7
Sep-11	4.768	14.420	156.6	5.445	16.405	178.9	5.445	178.9	5.445	16.405	178.9	5.445	178.9
Oct-11	4.731	19.151	155.4	5.422	21.827	178.1	5.422	178.1	5.422	21.827	178.1	5.422	178.1
Nov-11	4.693	23.844	154.2	5.398	27.225	177.4	5.398	177.4	5.398	27.225	177.3	5.398	177.3
Dec-11	4.656	28.500	153.0	5.375	32.601	176.6	5.375	176.6	5.375	32.600	176.6	5.375	176.6
Jan-12	4.285	32.785	140.8	5.121	37.722	168.3	5.121	168.3	5.121	37.814	171.3	5.121	171.3
Feb-12	4.251	37.036	139.6	5.099	42.821	167.5	5.099	167.5	5.192	43.006	170.6	5.192	170.6
Mar-12	4.219	41.254	138.6	5.078	47.899	166.8	5.078	166.8	5.170	48.176	169.9	5.170	169.9
Apr-12	4.185	45.439	137.5	5.056	52.955	166.1	5.056	166.1	5.148	53.324	169.1	5.148	169.1
May-12	4.152	49.591	136.4	5.035	57.990	165.4	5.035	165.4	5.126	58.450	168.4	5.126	168.4
Jun-12	4.119	53.710	135.3	5.013	63.003	164.7	5.013	164.7	5.104	63.554	167.7	5.104	167.7
Jul-12	3.997	57.706	131.3	4.877	67.880	160.2	4.877	160.2	5.070	68.623	166.6	5.070	166.6
Aug-12	3.965	61.671	130.3	4.856	72.735	159.5	4.856	159.5	5.047	73.671	165.8	5.047	165.8
Sep-12	3.933	65.604	129.2	4.835	77.570	158.8	4.835	158.8	5.025	78.696	165.1	5.025	165.1
Oct-12	3.902	69.506	128.2	4.814	82.384	158.2	4.814	158.2	5.004	83.700	164.4	5.004	164.4
Nov-12	3.871	73.376	127.2	4.793	87.178	157.5	4.793	157.5	4.982	88.683	163.7	4.982	163.7
Dec-12	3.840	77.217	126.2	4.773	91.951	156.8	4.773	156.8	4.961	93.644	163.0	4.961	163.0
Jan-13	3.628	80.845	119.2	4.528	96.479	148.8	4.528	148.8	4.805	98.449	157.9	4.805	157.9
Feb-13	3.599	84.443	118.2	4.508	100.987	148.1	4.508	148.1	4.784	103.233	157.2	4.784	157.2
Mar-13	3.573	88.016	117.4	4.490	105.478	147.5	4.490	147.5	4.765	107.998	156.5	4.765	156.5
Apr-13	3.544	91.560	116.4	4.471	109.948	146.9	4.471	146.9	4.744	112.742	155.9	4.744	155.9
May-13	3.516	95.076	115.5	4.452	114.401	146.3	4.452	146.3	4.724	117.466	155.2	4.724	155.2
Jun-13	3.488	98.564	114.6	4.433	118.833	145.6	4.433	145.6	4.704	122.170	154.5	4.704	154.5
Jul-13	3.403	101.968	111.8	4.352	123.185	143.0	4.352	143.0	4.714	126.883	154.9	4.714	154.9
Aug-13	3.376	105.344	110.9	4.333	127.518	142.4	4.333	142.4	4.693	131.577	154.2	4.693	154.2
Sep-13	3.349	108.692	110.0	4.314	131.833	141.7	4.314	141.7	4.673	136.249	153.5	4.673	153.5
Oct-13	3.323	112.015	109.2	4.296	136.129	141.1	4.296	141.1	4.653	140.903	152.9	4.653	152.9
Nov-13	3.296	115.311	108.3	4.277	140.406	140.5	4.277	140.5	4.633	145.535	152.2	4.633	152.2
Dec-13	3.270	118.582	107.4	4.259	144.666	139.9	4.259	139.9	4.613	150.149	151.6	4.613	151.6

Source: Senergy



Table 2.31

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	3.406	3.406	111.9	3.437	3.437	3.437	112.9	3.461	3.461	113.7
Aug-11	3.379	6.786	111.0	3.422	6.858	112.4	3.457	6.918	6.918	113.6
Sep-11	3.352	10.138	110.1	3.407	10.265	111.9	3.452	10.370	10.370	113.4
Oct-11	3.327	13.465	109.3	3.393	13.658	111.5	3.448	13.818	13.818	113.3
Nov-11	3.300	16.765	108.4	3.378	17.036	111.0	3.443	17.261	17.261	113.1
Dec-11	3.275	20.040	107.6	3.364	20.400	110.5	3.439	20.700	20.700	113.0
Jan-12	3.145	23.185	103.3	3.265	23.666	107.3	3.349	24.049	24.049	110.0
Feb-12	3.120	26.305	102.5	3.251	26.917	106.8	3.345	27.394	27.394	109.9
Mar-12	3.097	29.401	101.7	3.238	30.156	106.4	3.341	30.735	30.735	109.8
Apr-12	3.072	32.473	100.9	3.224	33.380	105.9	3.336	34.071	34.071	109.6
May-12	3.049	36.622	100.2	3.211	36.691	105.6	3.332	37.403	37.403	109.5
Jun-12	3.024	38.546	99.4	3.197	39.788	105.0	3.327	40.730	40.730	109.3
Jul-12	2.968	41.514	97.5	3.174	42.962	104.3	3.314	44.044	44.044	108.9
Aug-12	2.944	44.458	96.7	3.160	46.123	103.8	3.309	47.353	47.353	108.7
Sep-12	2.921	47.378	96.0	3.147	49.270	103.4	3.305	50.658	50.658	108.6
Oct-12	2.898	50.277	95.2	3.134	52.403	103.0	3.301	53.958	53.958	108.4
Nov-12	2.875	53.152	94.5	3.120	55.524	102.5	3.296	57.255	57.255	108.3
Dec-12	2.853	56.005	93.7	3.107	58.631	102.1	3.292	60.547	60.547	108.2
Jan-13	2.725	58.730	89.5	3.004	61.635	98.7	3.192	63.738	63.738	104.9
Feb-13	2.703	61.434	88.8	2.991	64.627	98.3	3.187	66.926	66.926	104.7
Mar-13	2.684	64.118	88.2	2.980	67.606	97.9	3.184	70.110	70.110	104.6
Apr-13	2.663	66.780	87.5	2.967	70.573	97.5	3.179	73.289	73.289	104.5
May-13	2.642	69.423	86.8	2.955	73.528	97.1	3.175	76.464	76.464	104.3
Jun-13	2.621	72.044	86.1	2.942	76.470	96.7	3.171	79.635	79.635	104.2
Jul-13	2.586	74.630	85.0	2.941	79.411	96.6	3.178	82.814	82.814	104.4
Aug-13	2.566	77.196	84.3	2.928	82.340	96.2	3.174	85.988	85.988	104.3
Sep-13	2.545	79.741	83.6	2.916	85.256	95.8	3.170	89.158	89.158	104.1
Oct-13	2.526	82.267	83.0	2.904	88.159	95.4	3.166	92.324	92.324	104.0
Nov-13	2.506	84.773	82.3	2.891	91.050	95.0	3.162	95.486	95.486	103.9
Dec-13	2.486	87.259	81.7	2.879	93.930	94.6	3.158	98.644	98.644	103.7

Source: Senergy



	1P		1P		2P		2P		3P		3P	
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	bopd
Jul-11	3.051	3.051	100.2	3.051	3.051	100.2	3.051	3.051	3.051	100.2	3.051	100.2
Aug-11	3.032	6.083	99.6	3.032	6.083	99.6	3.032	6.083	3.032	99.6	6.083	99.6
Sep-11	3.014	9.097	99.0	3.014	9.097	99.0	3.014	9.097	3.014	99.0	9.097	99.0
Oct-11	2.996	12.092	98.4	2.996	12.092	98.4	2.996	12.092	2.996	98.4	12.092	98.4
Nov-11	2.978	15.070	97.8	2.978	15.070	97.8	2.978	15.070	2.978	97.8	15.070	97.8
Dec-11	2.960	18.030	97.3	2.960	18.030	97.3	2.960	18.030	2.960	97.3	18.030	97.3
Jan-12	2.743	20.773	90.1	2.780	20.810	91.3	2.930	20.960	2.930	96.3	20.960	96.3
Feb-12	2.726	23.499	89.6	2.763	23.573	90.8	2.912	23.872	2.912	95.7	23.872	95.7
Mar-12	2.710	26.209	89.0	2.747	26.320	90.3	2.895	26.767	2.895	95.1	26.767	95.1
Apr-12	2.694	28.903	88.5	2.730	29.051	89.7	2.878	29.645	2.878	94.5	29.645	94.5
May-12	2.678	31.581	88.0	2.714	31.765	89.2	2.861	32.506	2.861	94.0	32.506	94.0
Jun-12	2.662	34.243	87.4	2.698	34.463	88.6	2.843	35.349	2.843	93.4	35.349	93.4
Jul-12	2.587	36.830	85.0	2.649	37.112	87.0	2.879	38.228	2.879	94.6	38.228	94.6
Aug-12	2.571	39.400	84.5	2.633	39.745	86.5	2.861	41.089	2.861	94.0	41.089	94.0
Sep-12	2.555	41.955	83.9	2.617	42.363	86.0	2.844	43.932	2.844	93.4	43.932	93.4
Oct-12	2.540	44.495	83.5	2.602	44.964	85.5	2.827	46.759	2.827	92.9	46.759	92.9
Nov-12	2.525	47.020	82.9	2.586	47.550	85.0	2.809	49.569	2.809	92.3	49.569	92.3
Dec-12	2.510	49.530	82.5	2.571	50.121	84.5	2.793	52.361	2.793	91.8	52.361	91.8
Jan-13	2.374	51.904	78.0	2.461	52.582	80.9	2.754	55.116	2.754	90.5	55.116	90.5
Feb-13	2.360	54.263	77.5	2.446	55.028	80.4	2.737	57.853	2.737	89.9	57.853	89.9
Mar-13	2.347	56.610	77.1	2.433	57.461	79.9	2.722	60.575	2.722	89.4	60.575	89.4
Apr-13	2.332	58.942	76.6	2.418	59.879	79.4	2.706	63.280	2.706	88.9	63.280	88.9
May-13	2.319	61.261	76.2	2.404	62.283	79.0	2.690	65.970	2.690	88.4	65.970	88.4
Jun-13	2.304	63.565	75.7	2.389	64.672	78.5	2.673	68.643	2.673	87.8	68.643	87.8
Jul-13	2.252	65.817	74.0	2.367	67.039	77.8	2.725	71.368	2.725	89.5	71.368	89.5
Aug-13	2.238	68.055	73.5	2.352	69.391	77.3	2.708	74.076	2.708	89.0	74.076	89.0
Sep-13	2.224	70.280	73.1	2.338	71.729	76.8	2.692	76.768	2.692	88.4	76.768	88.4
Oct-13	2.211	72.491	72.7	2.324	74.054	76.4	2.676	79.444	2.676	87.9	79.444	87.9
Nov-13	2.198	74.689	72.2	2.310	76.364	75.9	2.660	82.104	2.660	87.4	82.104	87.4
Dec-13	2.185	76.874	71.8	2.296	78.660	75.4	2.644	84.747	2.644	86.9	84.747	86.9

Source: Senergy

**Table 2.33**

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	0.061	0.061	2.0	0.148	0.148	0.148	4.8	0.903	0.903	29.7
Aug-11	0.061	0.122	2.0	0.145	0.293	0.293	4.8	0.896	1.800	29.4
Sep-11	0.060	0.183	2.0	0.143	0.436	0.436	4.7	0.889	2.689	29.2
Oct-11	0.060	0.243	2.0	0.141	0.576	0.576	4.6	0.882	3.571	29.0
Nov-11	0.059	0.302	2.0	0.139	0.715	0.715	4.6	0.875	4.446	28.7
Dec-11	0.059	0.361	1.9	0.136	0.852	0.852	4.5	0.868	5.314	28.5
Jan-12	0.056	0.418	1.9	0.126	0.977	0.977	4.1	0.859	6.173	28.2
Feb-12	0.056	0.474	1.8	0.124	1.101	1.101	4.1	0.852	7.026	28.0
Mar-12	0.056	0.529	1.8	0.122	1.223	1.223	4.0	0.846	7.872	27.8
Apr-12	0.055	0.584	1.8	0.120	1.343	1.343	3.9	0.839	8.711	27.6
May-12	0.055	0.639	1.8	0.118	1.461	1.461	3.9	0.833	9.544	27.4
Jun-12	0.054	0.693	1.8	0.116	1.577	1.577	3.8	0.826	10.370	27.1
Jul-12	0.053	0.746	1.7	0.111	1.688	1.688	3.6	0.818	11.188	26.9
Aug-12	0.053	0.799	1.7	0.109	1.797	1.797	3.6	0.812	12.000	26.7
Sep-12	0.052	0.852	1.7	0.107	1.904	1.904	3.5	0.805	12.805	26.5
Oct-12	0.052	0.904	1.7	0.106	2.010	2.010	3.5	0.799	13.604	26.3
Nov-12	0.052	0.955	1.7	0.104	2.114	2.114	3.4	0.793	14.397	26.0
Dec-12	0.051	1.006	1.7	0.102	2.217	2.217	3.4	0.786	15.184	25.8
Jan-13	0.049	1.055	1.6	0.096	2.312	2.312	3.1	0.780	15.964	25.6
Feb-13	0.048	1.104	1.6	0.094	2.407	2.407	3.1	0.774	16.738	25.4
Mar-13	0.048	1.152	1.6	0.093	2.499	2.499	3.1	0.768	17.506	25.2
Apr-13	0.048	1.199	1.6	0.091	2.591	2.591	3.0	0.762	18.268	25.0
May-13	0.047	1.247	1.6	0.090	2.681	2.681	3.0	0.756	19.024	24.8
Jun-13	0.047	1.294	1.5	0.089	2.770	2.770	2.9	0.750	19.775	24.6
Jul-13	0.046	1.340	1.5	0.086	2.856	2.856	2.8	0.745	20.519	24.5
Aug-13	0.046	1.385	1.5	0.085	2.940	2.940	2.8	0.739	21.258	24.3
Sep-13	0.045	1.431	1.5	0.083	3.024	3.024	2.7	0.733	21.991	24.1
Oct-13	0.045	1.476	1.5	0.082	3.106	3.106	2.7	0.727	22.718	23.9
Nov-13	0.045	1.520	1.5	0.081	3.187	3.187	2.7	0.721	23.440	23.7
Dec-13	0.044	1.565	1.5	0.080	3.267	3.267	2.6	0.716	24.155	23.5

Source: Senenergy





	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
Jul-11	0.328	0.328	10.8	0.383	0.383	0.383	12.6	0.452	0.452	14.8	14.8
Aug-11	0.325	0.653	10.7	0.381	0.764	0.764	12.5	0.450	0.901	14.8	14.8
Sep-11	0.323	0.975	10.6	0.379	1.143	1.143	12.5	0.448	1.349	14.7	14.7
Oct-11	0.320	1.296	10.5	0.377	1.520	1.520	12.4	0.446	1.795	14.6	14.6
Nov-11	0.318	1.614	10.5	0.376	1.896	1.896	12.3	0.444	2.238	14.6	14.6
Dec-11	0.316	1.930	10.4	0.374	2.270	2.270	12.3	0.442	2.680	14.5	14.5
Jan-12	0.317	2.247	10.4	0.374	2.644	2.644	12.3	0.442	3.122	14.5	14.5
Feb-12	0.315	2.562	10.3	0.372	3.017	3.017	12.2	0.440	3.561	14.4	14.4
Mar-12	0.313	2.874	10.3	0.371	3.387	3.387	12.2	0.438	3.999	14.4	14.4
Apr-12	0.310	3.184	10.2	0.369	3.756	3.756	12.1	0.436	4.435	14.3	14.3
May-12	0.308	3.492	10.1	0.367	4.124	4.124	12.1	0.434	4.868	14.3	14.3
Jun-12	0.306	3.798	10.0	0.366	4.489	4.489	12.0	0.432	5.300	14.2	14.2
Jul-12	0.307	4.106	10.1	0.366	4.855	4.855	12.0	0.432	5.732	14.2	14.2
Aug-12	0.305	4.411	10.0	0.364	5.220	5.220	12.0	0.430	6.163	14.1	14.1
Sep-12	0.303	4.714	10.0	0.363	5.583	5.583	11.9	0.428	6.591	14.1	14.1
Oct-12	0.301	5.014	9.9	0.361	5.944	5.944	11.9	0.426	7.017	14.0	14.0
Nov-12	0.299	5.313	9.8	0.359	6.303	6.303	11.8	0.424	7.442	13.9	13.9
Dec-12	0.296	5.609	9.7	0.358	6.661	6.661	11.8	0.423	7.864	13.9	13.9
Jan-13	0.000	5.609	0.0	0.358	7.019	7.019	11.8	0.423	8.287	13.9	13.9
Feb-13	0.000	5.609	0.0	0.357	7.376	7.376	11.7	0.421	8.708	13.8	13.8
Mar-13	0.000	5.609	0.0	0.355	7.731	7.731	11.7	0.419	9.128	13.8	13.8
Apr-13	0.000	5.609	0.0	0.354	8.085	8.085	11.6	0.418	9.545	13.7	13.7
May-13	0.000	5.609	0.0	0.352	8.437	8.437	11.6	0.416	9.961	13.7	13.7
Jun-13	0.000	5.609	0.0	0.350	8.787	8.787	11.5	0.414	10.375	13.6	13.6
Jul-13	0.000	5.609	0.0	0.351	9.139	9.139	11.5	0.414	10.789	13.6	13.6
Aug-13	0.000	5.609	0.0	0.349	9.488	9.488	11.5	0.412	11.202	13.6	13.6
Sep-13	0.000	5.609	0.0	0.348	9.836	9.836	11.4	0.411	11.612	13.5	13.5
Oct-13	0.000	5.609	0.0	0.346	10.182	10.182	11.4	0.409	12.021	13.4	13.4
Nov-13	0.000	5.609	0.0	0.345	10.527	10.527	11.3	0.407	12.428	13.4	13.4
Dec-13	0.000	5.609	0.0	0.343	10.870	10.870	11.3	0.405	12.833	13.3	13.3

Source: Senergy

	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	bopd
Jul-11	0.297	0.297	9.8	0.450	0.450	14.8	0.643	0.643	21.1	21.1	21.1
Aug-11	0.293	0.590	9.6	0.447	0.897	14.7	0.639	1.281	21.0	21.0	21.0
Sep-11	0.290	0.880	9.5	0.443	1.340	14.6	0.635	1.917	20.9	20.9	20.9
Oct-11	0.287	1.167	9.4	0.440	1.780	14.5	0.631	2.548	20.7	20.7	20.7
Nov-11	0.283	1.450	9.3	0.437	2.217	14.3	0.628	3.176	20.6	20.6	20.6
Dec-11	0.280	1.730	9.2	0.433	2.650	14.2	0.624	3.800	20.5	20.5	20.5
Jan-12	0.280	2.010	9.2	0.432	3.082	14.2	0.627	4.427	20.6	20.6	20.6
Feb-12	0.276	2.286	9.1	0.428	3.510	14.1	0.624	5.051	20.5	20.5	20.5
Mar-12	0.273	2.559	9.0	0.425	3.935	14.0	0.620	5.672	20.4	20.4	20.4
Apr-12	0.270	2.829	8.9	0.422	4.357	13.9	0.617	6.288	20.3	20.3	20.3
May-12	0.267	3.096	8.8	0.419	4.775	13.8	0.613	6.902	20.1	20.1	20.1
Jun-12	0.264	3.360	8.7	0.415	5.191	13.7	0.610	7.511	20.0	20.0	20.0
Jul-12	0.263	3.624	8.7	0.414	5.605	13.6	0.612	8.124	20.1	20.1	20.1
Aug-12	0.260	3.884	8.5	0.411	6.016	13.5	0.609	8.732	20.0	20.0	20.0
Sep-12	0.257	4.141	8.4	0.407	6.423	13.4	0.605	9.337	19.9	19.9	19.9
Oct-12	0.254	4.395	8.4	0.404	6.827	13.3	0.602	9.939	19.8	19.8	19.8
Nov-12	0.251	4.647	8.3	0.401	7.229	13.2	0.598	10.537	19.7	19.7	19.7
Dec-12	0.248	4.895	8.2	0.398	7.627	13.1	0.595	11.132	19.5	19.5	19.5
Jan-13	0.248	5.143	8.1	0.397	8.024	13.0	0.598	11.730	19.6	19.6	19.6
Feb-13	0.245	5.388	8.1	0.394	8.418	12.9	0.594	12.324	19.5	19.5	19.5
Mar-13	0.242	5.630	8.0	0.391	8.809	12.8	0.591	12.915	19.4	19.4	19.4
Apr-13	0.240	5.870	7.9	0.388	9.197	12.7	0.588	13.503	19.3	19.3	19.3
May-13	0.237	6.107	7.8	0.385	9.582	12.7	0.584	14.088	19.2	19.2	19.2
Jun-13	0.234	6.341	7.7	0.382	9.964	12.6	0.581	14.668	19.1	19.1	19.1
Jul-13	0.234	6.574	7.7	0.380	10.344	12.5	0.584	15.252	19.2	19.2	19.2
Aug-13	0.231	6.805	7.6	0.377	10.722	12.4	0.580	15.833	19.1	19.1	19.1
Sep-13	0.228	7.033	7.5	0.374	11.096	12.3	0.577	16.410	19.0	19.0	19.0
Oct-13	0.225	7.259	7.4	0.372	11.468	12.2	0.574	16.984	18.9	18.9	18.9
Nov-13	0.223	7.482	7.3	0.369	11.837	12.1	0.570	17.554	18.7	18.7	18.7
Dec-13	0.220	7.702	7.2	0.366	12.203	12.0	0.567	18.121	18.6	18.6	18.6

Source: Senergy

**Table 2.36**

	1P	1P	1P	2P	2P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	bopd
Jul-11	3.635	3.635	119.4	3.635	3.635	3.635	3.635	119.4	3.635	3.635	119.4	3.635	119.4
Aug-11	3.599	7.234	118.2	3.599	7.234	118.2	3.599	118.2	3.599	7.234	118.2	3.599	118.2
Sep-11	3.563	10.798	117.1	3.563	10.798	117.1	3.563	10.798	3.563	10.798	117.1	3.563	10.798
Oct-11	3.529	14.327	115.9	3.529	14.327	115.9	3.529	14.327	3.529	14.327	115.9	3.529	14.327
Nov-11	3.494	17.821	114.8	3.494	17.821	114.8	3.494	17.821	3.494	17.821	114.8	3.494	17.821
Dec-11	3.460	21.281	113.7	3.460	21.281	113.7	3.460	21.281	3.460	21.281	113.7	3.460	21.281
Jan-12	3.270	24.551	107.4	3.344	24.625	109.9	3.351	24.632	3.351	24.632	110.1	3.351	24.632
Feb-12	3.238	27.789	106.4	3.311	27.936	108.8	3.318	27.950	3.318	27.950	109.0	3.318	27.950
Mar-12	3.208	30.996	105.4	3.280	31.216	107.8	3.287	31.237	3.287	31.237	108.0	3.287	31.237
Apr-12	3.176	34.172	104.3	3.247	34.464	106.7	3.254	34.491	3.254	34.491	106.9	3.254	34.491
May-12	3.145	37.317	103.3	3.216	37.680	105.7	3.223	37.714	3.223	37.714	105.9	3.223	37.714
Jun-12	3.114	40.431	102.3	3.184	40.864	104.6	3.191	40.905	3.191	40.905	104.8	3.191	40.905
Jul-12	3.028	43.459	99.5	3.153	44.017	103.6	3.172	44.077	3.172	44.077	104.2	3.172	44.077
Aug-12	2.998	46.456	98.5	3.122	47.139	102.6	3.141	47.218	3.141	47.218	103.2	3.141	47.218
Sep-12	2.968	49.424	97.5	3.091	50.229	101.5	3.110	50.328	3.110	50.328	102.2	3.110	50.328
Oct-12	2.939	52.364	96.6	3.061	53.290	100.6	3.080	53.407	3.080	53.407	101.2	3.080	53.407
Nov-12	2.910	55.274	95.6	3.030	56.321	99.6	3.049	56.456	3.049	56.456	100.2	3.049	56.456
Dec-12	2.882	58.156	94.7	3.001	59.322	98.6	3.020	59.476	3.020	59.476	99.2	3.020	59.476
Jan-13	2.728	60.884	89.6	2.900	62.221	95.3	2.934	62.410	2.934	62.410	96.4	2.934	62.410
Feb-13	2.701	63.585	88.7	2.871	65.092	94.3	2.905	65.315	2.905	65.315	95.4	2.905	65.315
Mar-13	2.677	66.262	87.9	2.845	67.937	93.5	2.879	68.194	2.879	68.194	94.6	2.879	68.194
Apr-13	2.650	68.912	87.1	2.817	70.754	92.5	2.850	71.045	2.850	71.045	93.6	2.850	71.045
May-13	2.625	71.537	86.2	2.790	73.544	91.6	2.823	73.868	2.823	73.868	92.7	2.823	73.868
Jun-13	2.599	74.136	85.4	2.762	76.305	90.7	2.795	76.653	2.795	76.653	91.8	2.795	76.653
Jul-13	2.541	76.676	83.5	2.762	79.068	90.7	2.815	79.478	2.815	79.478	92.5	2.815	79.478
Aug-13	2.516	79.192	82.6	2.735	81.802	89.8	2.787	82.265	2.787	82.265	91.6	2.787	82.265
Sep-13	2.490	81.682	81.8	2.707	84.509	88.9	2.759	85.024	2.759	85.024	90.7	2.759	85.024
Oct-13	2.466	84.149	81.0	2.681	87.191	88.1	2.733	87.756	2.733	87.756	89.8	2.733	87.756
Nov-13	2.442	86.591	80.2	2.655	89.845	87.2	2.705	90.462	2.705	90.462	88.9	2.705	90.462
Dec-13	2.418	89.009	79.5	2.629	92.474	86.4	2.679	93.141	2.679	93.141	88.0	2.679	93.141

Source: Senergy

**Table 2.37**

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd
Jul-11	0.260	0.260	8.5	0.425	0.425	14.0	0.702	0.702	23.1	23.1
Aug-11	0.256	0.516	8.4	0.422	0.847	13.9	0.701	1.403	23.0	23.0
Sep-11	0.253	0.769	8.3	0.420	1.267	13.8	0.700	2.103	23.0	23.0
Oct-11	0.250	1.019	8.2	0.417	1.684	13.7	0.700	2.803	23.0	23.0
Nov-11	0.247	1.266	8.1	0.414	2.098	13.6	0.699	3.502	23.0	23.0
Dec-11	0.244	1.510	8.0	0.412	2.510	13.5	0.698	4.200	22.9	22.9
Jan-12	0.240	1.750	7.9	0.411	2.921	13.5	0.679	4.879	22.3	22.3
Feb-12	0.237	1.988	7.8	0.408	3.329	13.4	0.678	5.557	22.3	22.3
Mar-12	0.235	2.223	7.7	0.406	3.735	13.3	0.678	6.235	22.3	22.3
Apr-12	0.232	2.454	7.6	0.403	4.139	13.3	0.677	6.911	22.2	22.2
May-12	0.229	2.683	7.5	0.401	4.540	13.2	0.676	7.587	22.2	22.2
Jun-12	0.226	2.909	7.4	0.399	4.938	13.1	0.675	8.263	22.2	22.2
Jul-12	0.222	3.132	7.3	0.397	5.336	13.1	0.657	8.919	21.6	21.6
Aug-12	0.219	3.351	7.2	0.395	5.731	13.0	0.656	9.575	21.5	21.5
Sep-12	0.217	3.568	7.1	0.392	6.123	12.9	0.655	10.230	21.5	21.5
Oct-12	0.214	3.782	7.0	0.390	6.513	12.8	0.654	10.884	21.5	21.5
Nov-12	0.211	3.993	6.9	0.388	6.901	12.7	0.654	11.538	21.5	21.5
Dec-12	0.209	4.202	6.9	0.385	7.286	12.7	0.653	12.191	21.5	21.5
Jan-13	0.206	4.408	6.8	0.384	7.670	12.6	0.635	12.826	20.9	20.9
Feb-13	0.203	4.611	6.7	0.382	8.052	12.5	0.634	13.460	20.8	20.8
Mar-13	0.201	4.812	6.6	0.380	8.432	12.5	0.634	14.094	20.8	20.8
Apr-13	0.198	5.010	6.5	0.377	8.809	12.4	0.633	14.727	20.8	20.8
May-13	0.196	5.206	6.4	0.375	9.185	12.3	0.632	15.359	20.8	20.8
Jun-13	0.193	5.400	6.4	0.373	9.558	12.3	0.632	15.991	20.8	20.8
Jul-13	0.191	5.590	6.3	0.372	9.930	12.2	0.615	16.606	20.2	20.2
Aug-13	0.188	5.778	6.2	0.370	10.299	12.1	0.614	17.220	20.2	20.2
Sep-13	0.186	5.964	6.1	0.367	10.667	12.1	0.613	17.833	20.1	20.1
Oct-13	0.184	6.148	6.0	0.365	11.032	12.0	0.613	18.445	20.1	20.1
Nov-13	0.181	6.329	6.0	0.363	11.395	11.9	0.612	19.057	20.1	20.1
Dec-13	0.179	6.508	5.9	0.361	11.755	11.9	0.611	19.669	20.1	20.1

Source: Senergy



	1P		1P		2P		2P		2P		3P		3P	
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS
Jul-11	0.182	0.182	6.0	0.222	0.222	0.222	7.3	0.274	0.274	9.0	0.274	0.274	9.0	0.274
Aug-11	0.180	0.362	5.9	0.221	0.443	0.443	7.3	0.273	0.547	9.0	0.273	0.547	9.0	0.273
Sep-11	0.179	0.541	5.9	0.220	0.663	0.663	7.2	0.272	0.819	8.9	0.272	0.819	8.9	0.272
Oct-11	0.178	0.719	5.8	0.220	0.883	0.883	7.2	0.271	1.090	8.9	0.271	1.090	8.9	0.271
Nov-11	0.176	0.895	5.8	0.219	1.102	1.102	7.2	0.270	1.361	8.9	0.270	1.361	8.9	0.270
Dec-11	0.175	1.070	5.8	0.218	1.320	1.320	7.2	0.269	1.630	8.9	0.269	1.630	8.9	0.269
Jan-12	0.178	1.248	5.8	0.219	1.539	1.539	7.2	0.271	1.901	8.9	0.271	1.901	8.9	0.271
Feb-12	0.176	1.424	5.8	0.218	1.758	1.758	7.2	0.270	2.170	8.9	0.270	2.170	8.9	0.270
Mar-12	0.175	1.599	5.8	0.218	1.975	1.975	7.2	0.269	2.439	8.8	0.269	2.439	8.8	0.269
Apr-12	0.174	1.773	5.7	0.217	2.192	2.192	7.1	0.268	2.707	8.8	0.268	2.707	8.8	0.268
May-12	0.173	1.946	5.7	0.216	2.408	2.408	7.1	0.267	2.974	8.8	0.267	2.974	8.8	0.267
Jun-12	0.171	2.117	5.6	0.215	2.624	2.624	7.1	0.266	3.240	8.7	0.266	3.240	8.7	0.266
Jul-12	0.174	2.291	5.7	0.216	2.840	2.840	7.1	0.267	3.507	8.8	0.267	3.507	8.8	0.267
Aug-12	0.173	2.464	5.7	0.216	3.056	3.056	7.1	0.266	3.774	8.7	0.266	3.774	8.7	0.266
Sep-12	0.171	2.635	5.6	0.215	3.271	3.271	7.1	0.265	4.039	8.7	0.265	4.039	8.7	0.265
Oct-12	0.170	2.805	5.6	0.214	3.485	3.485	7.0	0.264	4.303	8.7	0.264	4.303	8.7	0.264
Nov-12	0.169	2.974	5.5	0.213	3.698	3.698	7.0	0.264	4.567	8.7	0.264	4.567	8.7	0.264
Dec-12	0.168	3.142	5.5	0.213	3.911	3.911	7.0	0.263	4.830	8.6	0.263	4.830	8.6	0.263
Jan-13	0.170	3.312	5.6	0.214	4.125	4.125	7.0	0.264	5.093	8.7	0.264	5.093	8.7	0.264
Feb-13	0.169	3.481	5.5	0.213	4.337	4.337	7.0	0.263	5.356	8.6	0.263	5.356	8.6	0.263
Mar-13	0.168	3.648	5.5	0.212	4.550	4.550	7.0	0.262	5.618	8.6	0.262	5.618	8.6	0.262
Apr-13	0.167	3.815	5.5	0.211	4.761	4.761	6.9	0.261	5.879	8.6	0.261	5.879	8.6	0.261
May-13	0.165	3.980	5.4	0.211	4.972	4.972	6.9	0.260	6.140	8.6	0.260	6.140	8.6	0.260
Jun-13	0.164	4.145	5.4	0.210	5.182	5.182	6.9	0.259	6.399	8.5	0.259	6.399	8.5	0.259
Jul-13	0.166	4.311	5.5	0.211	5.393	5.393	6.9	0.261	6.660	8.6	0.261	6.660	8.6	0.261
Aug-13	0.165	4.476	5.4	0.210	5.603	5.603	6.9	0.260	6.920	8.5	0.260	6.920	8.5	0.260
Sep-13	0.164	4.640	5.4	0.210	5.813	5.813	6.9	0.259	7.179	8.5	0.259	7.179	8.5	0.259
Oct-13	0.163	4.803	5.4	0.209	6.022	6.022	6.9	0.258	7.437	8.5	0.258	7.437	8.5	0.258
Nov-13	0.162	4.965	5.3	0.208	6.230	6.230	6.8	0.257	7.694	8.5	0.257	7.694	8.5	0.257
Dec-13	0.161	5.125	5.3	0.208	6.438	6.438	6.8	0.256	7.950	8.4	0.256	7.950	8.4	0.256

Source: Senergy



Table 2.39

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	18.372	18.372	603.6	18.372	18.372	18.372	603.6	18.372	18.372	603.6
Aug-11	18.336	36.709	602.4	18.336	36.709	602.4	18.336	36.709	602.4	602.4
Sep-11	18.300	55.009	601.2	18.300	55.009	601.2	18.300	55.009	601.2	601.2
Oct-11	18.266	73.275	600.1	18.266	73.275	600.1	18.266	73.275	600.1	600.1
Nov-11	18.230	91.505	598.9	18.230	91.505	598.9	18.230	91.505	598.9	598.9
Dec-11	18.195	109.700	597.8	18.195	109.700	597.8	18.195	109.701	597.8	597.8
Jan-12	16.898	126.598	555.2	17.219	126.919	565.7	17.746	127.447	583.0	583.0
Feb-12	16.865	143.463	554.1	17.185	144.104	564.6	17.711	145.158	581.9	581.9
Mar-12	16.834	160.297	553.1	17.154	161.258	563.6	17.679	162.837	580.8	580.8
Apr-12	16.801	177.098	552.0	17.120	178.378	562.5	17.644	180.481	579.7	579.7
May-12	16.769	193.868	550.9	17.088	195.466	561.4	17.611	198.092	578.6	578.6
Jun-12	16.737	210.604	549.9	17.054	212.520	560.3	17.576	215.668	577.5	577.5
Jul-12	16.345	226.949	537.0	16.750	229.270	550.3	17.533	233.201	576.0	576.0
Aug-12	16.313	243.262	536.0	16.717	245.987	549.2	17.499	250.700	574.9	574.9
Sep-12	16.281	259.544	534.9	16.684	262.671	548.1	17.464	268.165	573.8	573.8
Oct-12	16.250	275.794	533.9	16.653	279.324	547.1	17.431	285.596	572.7	572.7
Nov-12	16.219	292.013	532.8	16.620	295.944	546.0	17.397	302.993	571.6	571.6
Dec-12	16.188	308.200	531.8	16.589	312.533	545.0	17.364	320.358	570.5	570.5
Jan-13	15.385	323.586	505.5	15.869	328.402	521.4	16.868	337.226	554.2	554.2
Feb-13	15.355	338.941	504.5	15.838	344.240	520.4	16.835	354.061	553.1	553.1
Mar-13	15.328	354.269	503.6	15.810	360.050	519.4	16.805	370.866	552.1	552.1
Apr-13	15.298	369.567	502.6	15.779	375.829	518.4	16.772	387.639	551.0	551.0
May-13	15.269	384.836	501.6	15.749	391.579	517.4	16.741	404.379	550.0	550.0
Jun-13	15.239	400.075	500.7	15.718	407.297	516.4	16.708	421.087	548.9	548.9
Jul-13	14.966	415.040	491.7	15.551	422.848	510.9	16.782	437.869	551.4	551.4
Aug-13	14.936	429.977	490.7	15.520	438.368	509.9	16.749	454.618	550.3	550.3
Sep-13	14.907	444.884	489.8	15.490	453.858	508.9	16.716	471.335	549.2	549.2
Oct-13	14.879	459.763	488.8	15.460	469.318	507.9	16.685	488.019	548.2	548.2
Nov-13	14.850	474.613	487.9	15.430	484.749	506.9	16.652	504.671	547.1	547.1
Dec-13	14.822	489.435	487.0	15.401	500.150	506.0	16.621	521.292	546.1	546.1

Source: Senergy



	1P Bscf	1P MMscf/d	2P Bscf	2P MMscf/d	3P Bscf	3P MMscf/d
Jul-11	0.010	0.010	0.32	0.010	0.010	0.32
Aug-11	0.010	0.019	0.32	0.010	0.010	0.32
Sep-11	0.010	0.029	0.32	0.010	0.029	0.32
Oct-11	0.010	0.039	0.32	0.010	0.039	0.32
Nov-11	0.010	0.049	0.32	0.010	0.049	0.32
Dec-11	0.010	0.058	0.32	0.010	0.058	0.32
Jan-12	0.010	0.068	0.32	0.010	0.068	0.32
Feb-12	0.010	0.078	0.32	0.010	0.078	0.32
Mar-12	0.010	0.088	0.32	0.010	0.088	0.32
Apr-12	0.010	0.097	0.32	0.010	0.097	0.32
May-12	0.010	0.107	0.32	0.010	0.107	0.32
Jun-12	0.010	0.117	0.32	0.010	0.117	0.32
Jul-12	0.010	0.127	0.32	0.010	0.127	0.32
Aug-12	0.010	0.136	0.32	0.010	0.136	0.32
Sep-12	0.010	0.146	0.32	0.010	0.146	0.32
Oct-12	0.010	0.156	0.32	0.010	0.156	0.32
Nov-12	0.010	0.166	0.32	0.010	0.166	0.32
Dec-12	0.010	0.175	0.32	0.010	0.175	0.32
Jan-13	0.010	0.185	0.32	0.010	0.185	0.32
Feb-13	0.010	0.195	0.32	0.010	0.195	0.32
Mar-13	0.010	0.205	0.32	0.010	0.205	0.32
Apr-13	0.010	0.214	0.32	0.010	0.214	0.32
May-13	0.010	0.224	0.32	0.010	0.224	0.32
Jun-13	0.010	0.234	0.32	0.010	0.234	0.32
Jul-13	0.010	0.244	0.32	0.010	0.244	0.32
Aug-13	0.010	0.253	0.32	0.010	0.253	0.32
Sep-13	0.010	0.263	0.32	0.010	0.263	0.32
Oct-13	0.010	0.273	0.32	0.010	0.273	0.32
Nov-13	0.010	0.282	0.32	0.010	0.282	0.32
Dec-13	0.010	0.292	0.32	0.010	0.292	0.32

Source: Senergy

**Table 2.41**

	1P	1P	1P	2P	2P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd
Jul-11	1.385	1.385	45.5	1.385	1.385	1.385	1.385	1.385	45.5	1.385	1.385	1.385	45.5
Aug-11	1.349	2.734	44.3	1.349	2.734	2.734	2.734	2.734	44.3	1.349	2.734	2.734	44.3
Sep-11	1.315	4.049	43.2	1.315	4.049	4.049	4.049	4.049	43.2	1.315	4.049	4.049	43.2
Oct-11	1.283	5.332	42.1	1.283	5.332	5.332	5.332	5.332	42.1	1.283	5.332	5.332	42.1
Nov-11	1.250	6.582	41.1	1.250	6.582	6.582	6.582	6.582	41.1	1.250	6.582	6.582	41.1
Dec-11	1.219	7.801	40.1	1.219	7.801	7.801	7.801	7.801	40.1	1.219	7.801	7.801	40.1
Jan-12	1.065	8.866	35.0	1.175	8.977	8.977	8.977	8.977	38.6	1.175	8.976	8.976	38.6
Feb-12	1.038	9.904	34.1	1.145	10.122	10.122	10.122	10.122	37.6	1.145	10.122	10.122	37.6
Mar-12	1.013	10.918	33.3	1.118	11.240	11.240	11.240	11.240	36.7	1.118	11.240	11.240	36.7
Apr-12	0.988	11.905	32.4	1.090	12.330	12.330	12.330	12.330	35.8	1.090	12.329	12.329	35.8
May-12	0.963	12.868	31.6	1.063	13.392	13.392	13.392	13.392	34.9	1.063	13.392	13.392	34.9
Jun-12	0.939	13.807	30.8	1.036	14.428	14.428	14.428	14.428	34.0	1.036	14.428	14.428	34.0
Jul-12	0.838	14.644	27.5	1.007	15.436	15.436	15.436	15.436	33.1	3.255	17.683	17.683	107.0
Aug-12	0.816	15.461	26.8	0.982	16.417	16.417	16.417	16.417	32.3	3.242	20.925	20.925	106.5
Sep-12	0.796	16.256	26.1	0.957	17.374	17.374	17.374	17.374	31.4	3.229	24.155	24.155	106.1
Oct-12	0.776	17.032	25.5	0.933	18.307	18.307	18.307	18.307	30.7	3.217	27.371	27.371	105.7
Nov-12	0.756	17.788	24.8	0.909	19.216	19.216	19.216	19.216	29.9	3.204	30.575	30.575	105.3
Dec-12	0.738	18.526	24.2	0.887	20.104	20.104	20.104	20.104	29.1	3.192	33.767	33.767	104.9
Jan-13	0.641	19.167	21.1	0.899	21.002	21.002	21.002	21.002	29.5	3.119	36.886	36.886	102.5
Feb-13	0.625	19.792	20.5	0.876	21.878	21.878	21.878	21.878	28.8	3.106	39.992	39.992	102.1
Mar-13	0.611	20.403	20.1	0.856	22.734	22.734	22.734	22.734	28.1	3.095	43.087	43.087	101.7
Apr-13	0.595	20.998	19.5	0.834	23.568	23.568	23.568	23.568	27.4	3.083	46.169	46.169	101.3
May-13	0.580	21.578	19.1	0.813	24.381	24.381	24.381	24.381	26.7	3.071	49.240	49.240	100.9
Jun-13	0.566	22.144	18.6	0.793	25.174	25.174	25.174	25.174	26.0	3.058	52.298	52.298	100.5
Jul-13	0.507	22.651	16.7	0.791	25.965	25.965	25.965	25.965	26.0	3.046	55.344	55.344	100.1
Aug-13	0.495	23.146	16.2	0.771	26.736	26.736	26.736	26.736	25.3	3.034	58.378	58.378	99.7
Sep-13	0.482	23.628	15.8	0.752	27.488	27.488	27.488	27.488	24.7	3.022	61.400	61.400	99.3
Oct-13	0.470	24.098	15.4	0.733	28.221	28.221	28.221	28.221	24.1	3.010	64.410	64.410	98.9
Nov-13	0.458	24.556	15.1	0.714	28.935	28.935	28.935	28.935	23.5	2.998	67.408	67.408	98.5
Dec-13	0.447	25.003	14.7	0.697	29.632	29.632	29.632	29.632	22.9	2.986	70.395	70.395	98.1

Source: Senergy





	1P	1P	1P	2P	2P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	3P
Jul-11	5.920	5.920	194.5	5.923	5.923	5.923	5.923	194.6	10.495	10.495	344.8	344.8
Aug-11	5.850	11.770	192.2	5.852	11.774	192.3	10.288	20.783	338.0			
Sep-11	5.780	17.550	189.9	5.782	17.556	190.0	10.085	30.868	331.3			
Oct-11	5.713	23.262	187.7	5.715	23.272	187.8	9.893	40.760	325.0			
Nov-11	5.645	28.907	185.5	5.647	28.919	185.5	9.697	50.458	318.6			
Dec-11	5.579	34.487	183.3	5.582	34.501	183.4	9.512	59.970	312.5			
Jan-12	4.580	39.066	150.5	5.634	40.135	185.1	9.103	69.073	299.1			
Feb-12	4.401	43.467	144.6	5.567	45.702	182.9	8.923	77.996	293.2			
Mar-12	4.240	47.707	139.3	5.505	51.206	180.9	8.759	86.755	287.8			
Apr-12	4.074	51.781	133.8	5.439	56.646	178.7	8.586	95.341	282.1			
May-12	3.920	55.700	128.8	5.376	62.022	176.6	8.422	103.763	276.7			
Jun-12	3.767	59.467	123.7	5.312	67.334	174.5	8.256	112.019	271.2			
Jul-12	3.552	63.019	116.7	5.193	72.527	170.6	8.195	120.214	269.2			
Aug-12	3.413	66.431	112.1	5.131	77.657	168.6	8.033	128.247	263.9			
Sep-12	3.279	69.711	107.7	5.070	82.727	166.6	7.875	136.122	258.7			
Oct-12	3.155	72.866	103.7	5.011	87.738	164.6	7.725	143.847	253.8			
Nov-12	3.032	75.898	99.6	4.951	92.689	162.7	7.572	151.419	248.8			
Dec-12	2.917	78.815	95.8	4.894	97.584	160.8	7.428	158.847	244.0			
Jan-13	2.681	81.497	88.1	4.677	102.260	153.7	7.267	166.114	238.8			
Feb-13	2.576	84.073	84.6	4.621	106.882	151.8	7.124	173.239	234.1			
Mar-13	2.485	86.558	81.7	4.571	111.453	150.2	6.997	180.236	229.9			
Apr-13	2.388	88.947	78.5	4.517	115.970	148.4	6.859	187.095	225.4			
May-13	2.298	91.244	75.5	4.465	120.434	146.7	6.728	193.823	221.1			
Jun-13	2.208	93.453	72.5	4.411	124.846	144.9	6.596	200.419	216.7			
Jul-13	2.092	95.545	68.7	4.370	129.215	143.6	6.726	207.145	221.0			
Aug-13	2.011	97.556	66.1	4.317	133.533	141.8	6.593	213.738	216.6			
Sep-13	1.932	99.488	63.5	4.266	137.799	140.2	6.463	220.201	212.3			
Oct-13	1.859	101.347	61.1	4.217	142.015	138.5	6.340	226.541	208.3			
Nov-13	1.786	103.133	58.7	4.166	146.182	136.9	6.215	232.756	204.2			
Dec-13	1.719	104.852	56.5	4.118	150.300	135.3	6.096	238.852	200.3			

Source: Senergy

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	0.656	0.656	21.6	0.734	0.734	0.734	24.1	0.862	0.862	28.3
Aug-11	0.653	1.309	21.4	0.731	1.465	1.465	24.0	0.859	1.721	28.2
Sep-11	0.649	1.958	21.3	0.727	2.192	2.192	23.9	0.856	2.578	28.1
Oct-11	0.645	2.602	21.2	0.723	2.915	2.915	23.8	0.854	3.431	28.0
Nov-11	0.641	3.243	21.1	0.719	3.634	3.634	23.6	0.851	4.282	27.9
Dec-11	0.637	3.880	20.9	0.716	4.350	4.350	23.5	0.848	5.130	27.9
Jan-12	0.633	4.513	20.8	0.712	5.062	5.062	23.4	0.848	5.978	27.9
Feb-12	0.629	5.142	20.7	0.709	5.771	5.771	23.3	0.845	6.824	27.8
Mar-12	0.626	5.768	20.6	0.705	6.477	6.477	23.2	0.843	7.667	27.7
Apr-12	0.622	6.390	20.4	0.702	7.178	7.178	23.1	0.840	8.507	27.6
May-12	0.618	7.008	20.3	0.698	7.877	7.877	22.9	0.837	9.344	27.5
Jun-12	0.614	7.622	20.2	0.695	8.571	8.571	22.8	0.834	10.178	27.4
Jul-12	0.611	8.233	20.1	0.692	9.263	9.263	22.7	0.835	11.014	27.4
Aug-12	0.607	8.840	19.9	0.688	9.951	9.951	22.6	0.832	11.846	27.3
Sep-12	0.603	9.443	19.8	0.684	10.635	10.635	22.5	0.830	12.675	27.3
Oct-12	0.600	10.043	19.7	0.681	11.316	11.316	22.4	0.827	13.502	27.2
Nov-12	0.596	10.639	19.6	0.677	11.993	11.993	22.3	0.824	14.326	27.1
Dec-12	0.593	11.232	19.5	0.674	12.668	12.668	22.1	0.821	15.148	27.0
Jan-13	0.589	11.821	19.4	0.671	13.338	13.338	22.0	0.822	15.970	27.0
Feb-13	0.586	12.407	19.2	0.667	14.006	14.006	21.9	0.819	16.789	26.9
Mar-13	0.582	12.989	19.1	0.664	14.670	14.670	21.8	0.817	17.607	26.8
Apr-13	0.579	13.568	19.0	0.661	15.331	15.331	21.7	0.814	18.421	26.8
May-13	0.575	14.143	18.9	0.658	15.989	15.989	21.6	0.812	19.232	26.7
Jun-13	0.572	14.715	18.8	0.654	16.643	16.643	21.5	0.809	20.041	26.6
Jul-13	0.568	15.283	18.7	0.651	17.294	17.294	21.4	0.810	20.851	26.6
Aug-13	0.565	15.848	18.6	0.648	17.942	17.942	21.3	0.807	21.659	26.5
Sep-13	0.562	16.410	18.4	0.644	18.586	18.586	21.2	0.805	22.463	26.4
Oct-13	0.558	16.968	18.3	0.641	19.227	19.227	21.1	0.802	23.265	26.3
Nov-13	0.555	17.523	18.2	0.638	19.865	19.865	21.0	0.799	24.064	26.3
Dec-13	0.552	18.075	18.1	0.635	20.500	20.500	20.9	0.797	24.861	26.2

Source: Senergy



	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	4.843	4.843	159.1	4.843	4.843	159.1	4.843	4.843	4.843	159.1
Aug-11	4.805	9.648	157.9	4.805	9.648	157.9	4.805	9.648	9.648	157.9
Sep-11	4.766	14.414	156.6	4.766	14.414	156.6	4.766	14.414	14.414	156.6
Oct-11	4.729	19.143	155.4	4.729	19.143	155.4	4.729	19.143	19.143	155.4
Nov-11	4.692	23.835	154.1	4.691	23.835	154.1	4.691	23.835	23.835	154.1
Dec-11	4.655	28.490	152.9	4.655	28.490	152.9	4.655	28.490	28.490	152.9
Jan-12	4.237	32.727	139.2	4.235	32.725	139.1	4.590	33.080	33.080	150.8
Feb-12	4.203	36.931	138.1	4.201	36.926	138.0	4.553	37.633	37.633	149.6
Mar-12	4.172	41.102	137.1	4.170	41.096	137.0	4.519	42.152	42.152	148.5
Apr-12	4.138	45.241	136.0	4.136	45.232	135.9	4.483	46.635	46.635	147.3
May-12	4.106	49.347	134.9	4.104	49.337	134.8	4.448	51.083	51.083	146.1
Jun-12	4.074	53.421	133.8	4.072	53.408	133.8	4.413	55.496	55.496	145.0
Jul-12	4.032	57.453	132.5	4.069	57.477	133.7	4.454	59.949	59.949	146.3
Aug-12	4.000	61.453	131.4	4.036	61.513	132.6	4.418	64.368	64.368	145.2
Sep-12	3.968	65.421	130.4	4.004	65.517	131.5	4.383	68.750	68.750	144.0
Oct-12	3.937	69.358	129.4	3.973	69.490	130.5	4.349	73.089	73.089	142.9
Nov-12	3.906	73.264	128.3	3.941	73.431	129.5	4.314	77.413	77.413	141.7
Dec-12	3.876	77.140	127.3	3.911	77.341	128.5	4.281	81.694	81.694	140.6
Jan-13	3.734	80.874	122.7	3.809	81.150	125.1	4.212	85.906	85.906	138.4
Feb-13	3.705	84.579	121.7	3.778	84.928	124.1	4.178	90.084	90.084	137.3
Mar-13	3.678	88.257	120.8	3.751	88.679	123.2	4.148	94.232	94.232	136.3
Apr-13	3.648	91.905	119.9	3.721	92.400	122.2	4.115	98.348	98.348	135.2
May-13	3.620	95.525	118.9	3.692	96.092	121.3	4.083	102.431	102.431	134.2
Jun-13	3.591	99.117	118.0	3.663	99.755	120.3	4.051	106.481	106.481	133.1
Jul-13	3.574	102.691	117.4	3.689	103.444	121.2	4.123	110.604	110.604	135.5
Aug-13	3.546	106.236	116.5	3.660	107.103	120.2	4.090	114.694	114.694	134.4
Sep-13	3.517	109.754	115.6	3.630	110.734	119.3	4.057	118.751	118.751	133.3
Oct-13	3.490	113.244	114.7	3.602	114.336	118.3	4.026	122.777	122.777	132.3
Nov-13	3.462	116.706	113.7	3.573	117.909	117.4	3.994	126.771	126.771	131.2
Dec-13	3.435	120.142	112.9	3.546	121.455	116.5	3.963	130.733	130.733	130.2

Source: Senergy



	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd
Jul-11	1.058	1.058	34.8	1.367	1.367	1.367	44.9	1.830	1.830	60.1
Aug-11	1.037	2.095	34.1	1.346	2.713	44.2	1.811	3.640	59.5	
Sep-11	1.017	3.111	33.4	1.326	4.038	43.6	1.792	5.432	58.9	
Oct-11	0.997	4.109	32.8	1.307	5.345	42.9	1.774	7.206	58.3	
Nov-11	0.977	5.086	32.1	1.287	6.632	42.3	1.756	8.962	57.7	
Dec-11	0.959	6.045	31.5	1.268	7.900	41.7	1.738	10.700	57.1	
Jan-12	0.938	6.983	30.8	1.249	9.150	41.0	1.731	12.431	56.9	
Feb-12	0.920	7.902	30.2	1.230	10.380	40.4	1.713	14.143	56.3	
Mar-12	0.903	8.805	29.7	1.213	11.593	39.9	1.696	15.839	55.7	
Apr-12	0.885	9.690	29.1	1.195	12.788	39.3	1.679	17.518	55.1	
May-12	0.868	10.558	28.5	1.178	13.965	38.7	1.662	19.179	54.6	
Jun-12	0.851	11.408	28.0	1.160	15.125	38.1	1.645	20.824	54.0	
Jul-12	0.832	12.241	27.3	1.144	16.269	37.6	1.639	22.463	53.9	
Aug-12	0.816	13.056	26.8	1.127	17.396	37.0	1.622	24.086	53.3	
Sep-12	0.800	13.856	26.3	1.110	18.505	36.5	1.606	25.691	52.7	
Oct-12	0.784	14.641	25.8	1.094	19.599	35.9	1.589	27.281	52.2	
Nov-12	0.769	15.410	25.3	1.077	20.676	35.4	1.573	28.854	51.7	
Dec-12	0.754	16.164	24.8	1.061	21.737	34.9	1.557	30.411	51.2	
Jan-13	0.738	16.902	24.2	1.048	22.785	34.4	1.555	31.966	51.1	
Feb-13	0.723	17.625	23.8	1.032	23.818	33.9	1.539	33.505	50.6	
Mar-13	0.710	18.336	23.3	1.018	24.836	33.5	1.525	35.029	50.1	
Apr-13	0.696	19.032	22.9	1.003	25.839	33.0	1.509	36.538	49.6	
May-13	0.683	19.715	22.4	0.989	26.828	32.5	1.494	38.032	49.1	
Jun-13	0.670	20.385	22.0	0.974	27.802	32.0	1.478	39.510	48.6	
Jul-13	0.655	21.040	21.5	0.962	28.764	31.6	1.477	40.987	48.5	
Aug-13	0.642	21.681	21.1	0.948	29.712	31.1	1.462	42.449	48.0	
Sep-13	0.629	22.310	20.7	0.934	30.645	30.7	1.447	43.896	47.5	
Oct-13	0.617	22.927	20.3	0.920	31.566	30.2	1.432	45.328	47.1	
Nov-13	0.605	23.532	19.9	0.906	32.472	29.8	1.418	46.746	46.6	
Dec-13	0.593	24.125	19.5	0.893	33.365	29.3	1.403	48.149	46.1	

Source: Senergy

	1P	1P	1P	2P	2P	2P	2P	3P	3P	3P
	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	bopd	MBBLS
Jul-11	1.043	34.3	1.043	1.343	1.343	44.1	1.641	1.641	53.9	1.641
Aug-11	1.014	33.3	2.057	1.306	2.649	42.9	1.596	3.238	52.4	1.596
Sep-11	0.986	32.4	3.043	1.270	3.919	41.7	1.553	4.790	51.0	1.553
Oct-11	0.960	31.6	4.004	1.237	5.156	40.6	1.512	6.302	49.7	1.512
Nov-11	0.934	30.7	4.938	1.203	6.359	39.5	1.470	7.772	48.3	1.470
Dec-11	0.909	29.9	5.847	1.171	7.530	38.5	1.431	9.203	47.0	1.431
Jan-12	0.849	27.9	6.696	1.096	8.626	36.0	1.340	10.543	44.0	1.340
Feb-12	0.825	27.1	7.521	1.066	9.692	35.0	1.303	11.846	42.8	1.303
Mar-12	0.804	26.4	8.325	1.039	10.731	34.1	1.270	13.116	41.7	1.270
Apr-12	0.782	25.7	9.107	1.010	11.742	33.2	1.235	14.351	40.6	1.235
May-12	0.761	25.0	9.869	0.984	12.725	32.3	1.202	15.553	39.5	1.202
Jun-12	0.741	24.3	10.609	0.957	13.682	31.4	1.169	16.722	38.4	1.169
Jul-12	0.706	23.2	11.315	0.914	14.596	30.0	1.118	17.840	36.7	1.118
Aug-12	0.686	22.5	12.001	0.889	15.486	29.2	1.087	18.927	35.7	1.087
Sep-12	0.668	21.9	12.669	0.865	16.351	28.4	1.058	19.985	34.7	1.058
Oct-12	0.650	21.4	13.319	0.842	17.193	27.7	1.030	21.014	33.8	1.030
Nov-12	0.632	20.8	13.951	0.819	18.013	26.9	1.001	22.016	32.9	1.001
Dec-12	0.615	20.2	14.566	0.798	18.810	26.2	0.975	22.990	32.0	0.975
Jan-13	0.571	18.8	15.138	0.743	19.553	24.4	0.908	23.898	29.8	0.908
Feb-13	0.556	18.3	15.694	0.722	20.275	23.7	0.883	24.781	29.0	0.883
Mar-13	0.542	17.8	16.236	0.705	20.980	23.1	0.861	25.643	28.3	0.861
Apr-13	0.527	17.3	16.763	0.685	21.665	22.5	0.838	26.480	27.5	0.838
May-13	0.513	16.9	17.276	0.667	22.332	21.9	0.816	27.296	26.8	0.816
Jun-13	0.499	16.4	17.775	0.649	22.981	21.3	0.793	28.089	26.1	0.793
Jul-13	0.478	15.7	18.253	0.623	23.605	20.5	0.762	28.851	25.0	0.762
Aug-13	0.465	15.3	18.718	0.606	24.211	19.9	0.741	29.592	24.4	0.741
Sep-13	0.452	14.9	19.171	0.590	24.801	19.4	0.721	30.313	23.7	0.721
Oct-13	0.440	14.5	19.611	0.574	25.375	18.9	0.702	31.015	23.1	0.702
Nov-13	0.428	14.1	20.039	0.559	25.934	18.3	0.683	31.698	22.4	0.683
Dec-13	0.417	13.7	20.456	0.544	26.477	17.9	0.665	32.362	21.8	0.665

Source: Senenergy





	1P	1P	1P	2P	2P	2P	2P	2P	3P	3P	3P	3P
	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	MBBLS	bopd	MBBLS	MBBLS	MBBLS	bopd
Jul-11	17.313	17.313	568.8	17.313	17.313	17.313	17.313	568.8	17.313	17.313	17.313	568.8
Aug-11	16.802	34.114	552.0	16.804	34.117	552.1	16.804	552.1	16.804	34.117	552.1	552.1
Sep-11	16.306	50.420	535.7	16.311	50.427	535.9	16.311	535.9	16.311	50.427	535.9	535.9
Oct-11	15.840	66.260	520.4	15.847	66.274	520.6	15.847	520.6	15.847	66.274	520.6	520.6
Nov-11	15.373	81.633	505.1	15.382	81.656	505.3	15.382	505.3	15.382	81.656	505.3	505.3
Dec-11	14.934	96.566	490.6	14.944	96.600	491.0	14.944	491.0	14.944	96.600	491.0	491.0
Jan-12	10.878	107.445	357.4	12.606	109.206	414.2	14.333	110.933	14.333	110.933	470.9	470.9
Feb-12	10.557	118.002	346.8	12.236	121.441	402.0	13.912	124.846	13.912	124.846	457.1	457.1
Mar-12	10.265	128.267	337.3	11.899	133.340	390.9	13.530	138.376	13.530	138.376	444.5	444.5
Apr-12	9.963	138.230	327.3	11.550	144.890	379.5	13.133	151.508	13.133	151.508	431.5	431.5
May-12	9.678	147.908	318.0	11.221	156.111	368.7	12.769	164.267	12.769	164.267	419.2	419.2
Jun-12	9.392	157.300	308.6	10.892	167.003	357.8	12.384	176.652	12.384	176.652	406.9	406.9
Jul-12	9.934	167.234	326.4	10.221	177.224	335.8	10.405	187.057	10.405	187.057	341.9	341.9
Aug-12	9.833	177.068	323.1	10.120	187.344	332.5	10.339	197.396	10.339	197.396	339.7	339.7
Sep-12	9.733	186.800	319.8	10.021	197.365	329.2	10.273	207.669	10.273	207.669	337.5	337.5
Oct-12	9.637	196.437	316.6	9.925	207.290	326.1	10.210	217.878	10.210	217.878	335.4	335.4
Nov-12	9.538	205.975	313.4	9.827	217.117	322.9	10.145	228.023	10.145	228.023	333.3	333.3
Dec-12	9.444	215.419	310.3	9.733	226.851	319.8	10.082	238.105	10.082	238.105	331.2	331.2
Jan-13	9.260	224.679	304.2	9.477	236.327	311.3	9.923	248.028	9.923	248.028	326.0	326.0
Feb-13	9.252	233.931	304.0	9.543	245.870	313.5	9.954	257.982	9.954	257.982	327.0	327.0
Mar-13	9.167	243.098	301.2	9.458	255.328	310.7	9.897	267.879	9.897	267.879	325.1	325.1
Apr-13	9.073	252.172	298.1	9.364	264.692	307.7	9.834	277.713	9.834	277.713	323.1	323.1
May-13	8.984	261.156	295.2	9.275	273.967	304.7	9.773	287.486	9.773	287.486	321.1	321.1
Jun-13	8.892	270.048	292.1	9.184	283.151	301.7	9.711	297.197	9.711	297.197	319.0	319.0
Jul-13	8.919	278.967	293.0	9.209	292.360	302.6	9.787	306.984	9.787	306.984	321.6	321.6
Aug-13	8.715	287.682	286.3	9.007	301.367	295.9	9.589	316.573	9.589	316.573	315.1	315.1
Sep-13	8.626	296.307	283.4	8.918	310.284	293.0	9.528	326.102	9.528	326.102	313.0	313.0
Oct-13	8.540	304.847	280.6	8.833	319.117	290.2	9.470	335.571	9.470	335.571	311.1	311.1
Nov-13	8.453	313.301	277.7	8.746	327.863	287.3	9.409	344.981	9.409	344.981	309.1	309.1
Dec-13	8.370	321.670	275.0	8.662	336.525	284.6	9.351	354.332	9.351	354.332	307.2	307.2

Source: Senergy



	1P		1P		2P		2P		3P		3P	
	Bscf	MMscf/d	Bscf	MMscf/d	Bscf	MMscf/d	Bscf	MMscf/d	Bscf	MMscf/d	Bscf	MMscf/d
Jul-11	0.064	0.064	2.1	0.064	0.064	2.1	0.064	0.064	0.064	2.1	0.064	2.1
Aug-11	0.064	0.128	2.1	0.064	0.128	2.1	0.064	0.128	0.064	0.128	2.1	2.1
Sep-11	0.064	0.192	2.1	0.064	0.192	2.1	0.064	0.192	0.064	0.192	2.1	2.1
Oct-11	0.064	0.256	2.1	0.064	0.256	2.1	0.064	0.256	0.064	0.256	2.1	2.1
Nov-11	0.064	0.320	2.1	0.064	0.320	2.1	0.064	0.320	0.064	0.320	2.1	2.1
Dec-11	0.064	0.384	2.1	0.064	0.384	2.1	0.064	0.384	0.064	0.384	2.1	2.1
Jan-12	0.064	0.447	2.1	0.064	0.447	2.1	0.064	0.447	0.064	0.447	2.1	2.1
Feb-12	0.064	0.511	2.1	0.064	0.511	2.1	0.064	0.511	0.064	0.511	2.1	2.1
Mar-12	0.064	0.575	2.1	0.064	0.575	2.1	0.064	0.575	0.064	0.575	2.1	2.1
Apr-12	0.064	0.639	2.1	0.064	0.639	2.1	0.064	0.639	0.064	0.639	2.1	2.1
May-12	0.064	0.703	2.1	0.064	0.703	2.1	0.064	0.703	0.064	0.703	2.1	2.1
Jun-12	0.064	0.767	2.1	0.064	0.767	2.1	0.064	0.767	0.064	0.767	2.1	2.1
Jul-12	0.064	0.831	2.1	0.064	0.831	2.1	0.064	0.831	0.064	0.831	2.1	2.1
Aug-12	0.064	0.895	2.1	0.064	0.895	2.1	0.064	0.895	0.064	0.895	2.1	2.1
Sep-12	0.064	0.959	2.1	0.064	0.959	2.1	0.064	0.959	0.064	0.959	2.1	2.1
Oct-12	0.064	1.023	2.1	0.064	1.023	2.1	0.064	1.023	0.064	1.023	2.1	2.1
Nov-12	0.064	1.087	2.1	0.064	1.087	2.1	0.064	1.087	0.064	1.087	2.1	2.1
Dec-12	0.064	1.151	2.1	0.064	1.151	2.1	0.064	1.151	0.064	1.151	2.1	2.1
Jan-13	0.064	1.214	2.1	0.064	1.214	2.1	0.064	1.214	0.064	1.214	2.1	2.1
Feb-13	0.064	1.278	2.1	0.064	1.278	2.1	0.064	1.278	0.064	1.278	2.1	2.1
Mar-13	0.064	1.342	2.1	0.064	1.342	2.1	0.064	1.342	0.064	1.342	2.1	2.1
Apr-13	0.064	1.406	2.1	0.064	1.406	2.1	0.064	1.406	0.064	1.406	2.1	2.1
May-13	0.064	1.470	2.1	0.064	1.470	2.1	0.064	1.470	0.064	1.470	2.1	2.1
Jun-13	0.064	1.534	2.1	0.064	1.534	2.1	0.064	1.534	0.064	1.534	2.1	2.1
Jul-13				0.064	1.598	2.1	0.064	1.598	0.064	1.598	2.1	2.1
Aug-13				0.064	1.662	2.1	0.064	1.662	0.064	1.662	2.1	2.1
Sep-13				0.064	1.726	2.1	0.064	1.726	0.064	1.726	2.1	2.1
Oct-13				0.064	1.790	2.1	0.064	1.790	0.064	1.790	2.1	2.1
Nov-13				0.064	1.854	2.1	0.064	1.854	0.064	1.854	2.1	2.1
Dec-13				0.064	1.918	2.1	0.064	1.918	0.064	1.918	2.1	2.1

Source: Senergy



Star Capital Expenditure by Field (£M)						
Field Name	2012	2013	2014	2015	2016	
Cold Hanworth	63.1	61.9	60.0	58.4	56.9	
Nettleham	2.9	-	-	-	-	
Welton	430.0	461.0	486.2	510.7	535.2	
Scampton North	80.6	81.5	81.4	81.3	81.4	
Scampton South	10.6	11.2	11.7	12.1	12.4	
Stainton	10.1	11.0	11.7	12.3	12.9	
Gainsborough/Beckingham	125.8	129.5	131.7	133.8	135.8	
Glentworth	81.0	86.7	91.3	95.7	100.0	
East Glentworth	21.3	21.9	22.4	22.7	22.9	
Corringham	42.8	46.4	49.4	52.2	54.8	
Long Clawson	68.0	70.1	71.3	72.4	73.5	
Rempstone	9.3	10.3	11.3	12.2	13.1	
Bothamsall	29.1	32.7	36.2	39.6	43.1	
Egmanton	1.5	-	-	-	-	
South Leverton	5.5	6.2	6.9	7.5	8.2	
Goodworth	17.6	19.2	20.6	21.8	22.9	
Stockbridge	276.1	269.5	278.9	288.4	297.7	
Avington	13.0	11.7	10.8	10.3	10.0	
Albury	-	-	-	-	-	
Storrington	23.9	-	-	-	-	
PalmersWood	29.3	-	-	-	-	
Hordean	92.3	96.6	99.6	102.4	105.1	
Bletchingley	133.7	129.5	124.8	120.9	117.6	
<b>Total</b>	<b>1,568</b>	<b>1,557</b>	<b>1,606</b>	<b>1,655</b>	<b>1,704</b>	

Source: Senergy Analysis

Table 3.1





Field Name	Star Operating Expenditure by Field (£M)					
	2012	2013	2014	2015	2016	
Cold Hanworth	666.6	618.1	577.3	541.9	512.4	
Nettleham	136.1	0.0	0.0	0.0	0.0	
Welton	2952.0	2778.8	2622.6	2478.0	2386.6	
Scampton North	587.6	542.0	503.3	469.4	445.1	
Scampton South	149.2	141.7	134.8	128.3	122.5	
Stainton	112.2	106.6	101.6	96.8	92.9	
Gainsborough/Beckingham	1533.9	1443.2	1364.6	1293.1	1232.0	
Glentworth	481.2	451.3	424.3	399.2	384.6	
East Glentworth	142.7	132.2	123.3	115.1	109.4	
Corringham	300.8	284.6	269.7	255.4	246.1	
Long Clawson	457.7	424.1	395.0	369.0	351.3	
Rempstone	173.5	166.1	159.4	153.1	147.0	
Bothamsall	248.1	238.1	228.8	219.6	213.8	
Egmanton	35.9	0.0	0.0	0.0	0.0	
South Leverton	48.4	46.5	44.7	43.0	41.9	
Goodworth	189.6	180.5	172.1	164.1	157.6	
Stockbridge	2314.8	2124.5	2003.7	1894.3	1812.2	
Avington	170.4	156.5	146.3	137.9	130.7	
Albury	0.0	0.0	0.0	0.0	0.0	
Storrington	495.3	0.0	0.0	0.0	0.0	
PalmersWood	584.9	275.3	0.0	0.0	0.0	
Hordean	584.2	543.6	507.7	475.2	454.4	
Bletchingley	1049.0	957.5	883.0	820.2	772.9	
<b>Total</b>	<b>13,414</b>	<b>11,611</b>	<b>10,662</b>	<b>10,053</b>	<b>9,613</b>	

Source: Senergy Analysis



Field Name	Star SG&A Expenditure by Field (£M)					
	2012	2013	2014	2015	2016	
Cold Hanworth	136.7	76.8	62.6	41.7	38.5	
Nettleham	6.3	0.0	0.0	0.0	0.0	
Welton	931.8	572.2	507.8	365.1	361.7	
Scampton North	174.8	101.1	85.0	58.1	55.0	
Scampton South	22.9	14.0	12.2	8.7	8.4	
Stainton	21.9	13.6	12.2	8.8	8.7	
Gainsborough/Beckingham	1199.6	774.0	702.7	485.7	487.3	
Glentworth	239.5	147.8	128.3	84.8	81.4	
East Glentworth	62.8	37.3	31.4	20.1	18.6	
Corringham	126.3	79.1	69.5	46.3	44.6	
Long Clawson	201.0	119.5	100.2	64.2	59.9	
Rempstone	27.5	17.6	15.8	10.8	10.7	
Bothamsall	85.9	55.8	50.8	35.1	35.0	
Egmanton	4.5	1.6	0.0	0.0	0.0	
South Leverton	16.2	10.6	9.6	6.7	6.7	
Goodworth	60.8	42.5	39.0	25.6	25.2	
Stockbridge	951.8	594.8	529.0	338.5	327.1	
Avington	44.9	25.8	20.6	12.1	11.0	
Albury	275.5	0.0	0.0	0.0	0.0	
Storrington	154.3	18.7	0.0	0.0	0.0	
Palmers Wood	189.3	148.7	130.3	0.0	0.0	
Homdean	595.6	502.7	475.9	318.6	311.7	
Bletchingley	863.0	674.0	596.2	376.0	348.7	
<b>Total</b>	<b>6,393</b>	<b>4,028</b>	<b>3,579</b>	<b>2,307</b>	<b>2,240</b>	

Source: Senergy Analysis



senergy

## Star Assets Estimated Abandonment Costs by Field (2011 prices)

Competent Person's Report

Field Name	Star Abandonment Provision (in £M, 2011 prices)							Contingency	Total Provision
	Abandonment	Clearance	Restoration	Pipelines	Relinquishment	Interest			
Cold Hanworth	200.0	32.7	133.8	0.0	11.5	100%		10%	415.8
Nettleham	150.0	13.4	60.8	26.8		100%		10%	276.1
Welton	2200.0	449.6	907.4	52.9	11.2	100%		10%	3983.2
Scampton North	400.0	49.3	223.5	0.0	11.5	100%		10%	752.7
Scampton South	100.0	16.6	44.9	0.0	5.7	100%		10%	183.9
Stainton	50.0	11.8	44.3	0.0	7.8	100%		10%	125.3
Gainsborough/Beckingham	3250.0	442.1	1458.2	382.7	12.6	100%		10%	6100.2
Glentworth	200.0	19.0	76.0	0.0	5.1	100%		10%	330.2
East Glentworth	100.0	11.3	70.1	0.0	5.1	100%		10%	205.2
Corringham	250.0	27.2	159.7	0.0	11.5	100%		10%	493.3
Long Clawson	250.0	32.8	103.4	0.0	10.3	100%		10%	436.1
Rempstone	100.0	11.1	128.7	0.0	6.6	100%		10%	271.0
Bothamsall	650.0	107.9	382.1	81.2	11.2	100%		10%	1355.6
Egmanton	600.0	51.2	411.6	104.9	10.3	100%		10%	1295.8
South Leverton	200.0	14.1	101.0	26.0	9.3	100%		10%	385.5
Goodworth	250.0	18.0	80.1	0.0	8.4	100%		10%	392.2
Stockbridge	1000.0	336.6	593.5	0.0	11.5	100%		10%	2135.8
Avington	100.0	20.8	95.2	0.0	8.4	50%		10%	123.4
Albury	200.0	24.7	99.3	0.0	6.5	100%		10%	363.6
Storrington	200.0	64.5	138.2	0.0	11.2	100%		10%	455.2
PalmersWood	450.0	104.6	585.1	12.2	10.3	100%		10%	1278.5
Homdean	250.0	32.4	301.2	0.0	12.4	89%		10%	584.3
Bletchingley	650.0	17.1	134.3	0.0	11.2	100%		10%	893.8
<b>Total</b>	<b>11,800</b>	<b>1,909</b>	<b>6,332</b>	<b>687</b>	<b>210</b>				<b>22,837</b>

Table 3.4

Source: Senergy Analysis



Field Name	Economic Cut-Off Date		
	1P	2P	3P
Cold Hanworth	2012	2028	2036
Nettleham	2013	2013	2043
Welton	2043	2043	2043
Scampton North	2029	2043	2043
Scampton South	2016	2030	2043
Stainton	2015	2029	2038
Gainsborough/Beckingham	2023	2043	2043
Glentworth	2039	2043	2043
East Glentworth	2016	2025	2040
Corringham	2026	2041	2043
Long Clawson	2037	2043	2043
Rempstone	2013	2018	2023
Bothamsall	2027	2043	2043
Egmanton	2013	2013	2043
South Leverton	2017	2032	2043
Goodworth	2030	2035	2043
Stockbridge	2040	2043	2043
Avington	2013	2014	2043
Albury	2018	2031	2035
Storrington	2013	2013	2014
PalmersWood	2013	2014	2028
Hordean	2042	2043	2043
Bletchingley	2015	2043	2043

Source: Senergy Analysis

Table 3.5

Area	PEDL	Data Notes	Wells	Field Development Plans	Development Notes
Swallowcroft	40-1	54 boreholes (21 samples, 2 core, 10 logs); 178 gas samples from 22 seams		Potteries FDP March 2009 portions 40, 56, 78	coals outcrop N. lisc; Wam Fault downthrows west
Swallowcroft	56-1			Potteries FDP March 2009 portions 40, 56, 78	edge lisc; 30% coals un-named
Swallowcroft	78-1		Willoughbridge 1 corehole Weatherford '09	Potteries FDP March 2009 portions 40, 56, 78	no coal mining or exploration; seam correlation to 40/56
Swallowcroft	78-2	18 boreholes			coal measures absent or mined east boundary fault; 2-D seismic
Greater Swallowcroft	115-1	6 boreholes east of fault; lower rank east; uncertain rank west			bounding n-s fault divides A-B; est. west for expected preserved coal measures; thick coals
Greater Swallowcroft	115-2	27 boreholes; n-s faults; sub crop north			lower Gc
Four Oaks	145	104 boreholes (7 samples, 2 core, 14 logs); 8 Gc wells 7 logs; 8 Gc wells 7 logs; 8 Gc wells 7 logs	3 wells (Evergreen '00, 2 Nexen '06); Doe Green 1 Ticora '08; Doe Green 1 & 2 prod tests	Doe Green FDP December 2008	Westphalian <5000' to south; n-s faults; mining north; Four Oaks 1 boreholes prod test P&A; some 2-D and small 3-D seismic; n core holes or mining activity south river Mersey; 3 blocks, coastal
Foxhill	116		Foxhill Farm 1 only borehole		no seismic; lacks depth control; Gc from 143, 184, 190
North Dee	184	8 boreholes south of lisc			no depth, no Gc, complex geology, steeply dipping faults, mined area; 3 seismic lines; Gc 107
North Dee	190	2 boreholes			no depth, no Gc, complex geology, steeply dipping faults, Gc 107; coastal
Greater Parkside	193	68 boreholes		Culcheth Area FDP March 2011	borehole & Gc data in mined area north & east; limited borehole data south & east; depth by seismic; 40% un-named coals, deep 1700m, 2 normal faults
Drax	92-1	46 boreholes (10 samples, 8 core, 21 logs)	Mill Farm 1 corehole Ticora		thin coals, low gas content; some seams under saturated; bisected by rivers
Point Ayr	107	21 boreholes (7 samples, 2 core, 7 logs); 9 gas samples 7 seams	Mostyn Quay-1 corehole Ticora '08		extensively mined; coals 200-700m; Gc from coal rank & isotherms
Point Ayr Offshore	110/18, 19, 23	7 shallow boreholes	3 wells (2 Chevron '96 offshore, Rhuddlan 1 CBM)		area by seismic, thickness by extrapolation; Dee estuary

Source: Senenergy Analysis



GIIP (in Bscf)					
Name	Licence	P90	P50	P10	
Swallowcroft A	PEDL 40/56	528	900	1679	
Swallowcroft B					
Greater Swallowcroft A	PEDL 78	208	529	1004	
Greater Swallowcroft B					
Greater Swallowcroft C	PEDL 115-1	364	850	1845	
Greater Swallowcroft D					
Greater Swallowcroft E	PEDL 115-2	88	160	302	
Four Oaks; N of Mersey	PEDL 145	96	164	316	
Four Oaks; S of Mersey	PEDL 145	176	303	899	
PEDL 116	PEDL 116	93	153	264	
North Dee A	PEDL 184	667	1215	2196	
North Dee B	PEDL 190	302	523	832	
Greater Parkside	PEDL 193	637	1157	3312	
Point Ayr					
Point Ayr Offshore A	PEDL 110/19 & 107	304	491	941	
Point Ayr Offshore B	PEDL 110/18 & 23	791	1170	2302	

Source: Senergy Analysis

Table 4.2



Developed Area (in %)				
Name	Licence	P90	P50	P10
Swallowcroft A	PEDL 40/56	80%	85%	90%
Swallowcroft B				
Greater Swallowcroft A	PEDL 78	80%	85%	90%
Greater Swallowcroft B				
Greater Swallowcroft C	PEDL 115-1	85%	90%	95%
Greater Swallowcroft D				
Greater Swallowcroft E	PEDL 115-2	75%	70%	90%
Four Oaks; N of Mersey	PEDL 145	75%	80%	85%
Four Oaks; S of Mersey	PEDL 145	80%	85%	90%
PEDL 116	PEDL 116	75%	80%	85%
North Dee A	PEDL 184	75%	80%	85%
North Dee B	PEDL 190	75%	80%	85%
Greater Parkside	PEDL 193	80%	85%	90%
Point Ayr				
Point Ayr Offshore A	PEDL 110/19 & 107	65%	75%	85%
Point Ayr Offshore B	PEDL 110/18 & 23	65%	75%	85%

Source: Senergy Analysis

Table 4.3



Recovery Factor (in %)				
Name	Licence	P90	P50	P10
Swallowcroft A	PEDL 40/56	22%	27%	32%
Swallowcroft B				
Greater Swallowcroft A	PEDL 78	18%	23%	28%
Greater Swallowcroft B				
Greater Swallowcroft C	PEDL 115-1	18%	23%	28%
Greater Swallowcroft D				
Greater Swallowcroft E	PEDL 115-2	18%	23%	28%
Four Oaks; N of Mersey	PEDL 145	22%	27%	32%
Four Oaks; S of Mersey	PEDL 145	22%	27%	32%
PEDL 116	PEDL 116	18%	23%	28%
North Dee A	PEDL 184	18%	23%	28%
North Dee B	PEDL 190	18%	23%	28%
Greater Parkside	PEDL 193	20%	25%	30%
Point Ayr				
Point Ayr Offshore A	PEDL 110/19 & 107	18%	23%	28%
Point Ayr Offshore B	PEDL 110/18 & 23	18%	23%	28%

Source: Senergy Analysis

Table 4.4





Field Sales Discount to Brent Oil Price		
Field Name	Discount (US\$ / bbl)	Discount (%)
Cold Hanworth	0.85	1.00%
Nettleham	0.85	1.00%
Welton	0.85	1.00%
Scampton North	0.85	1.00%
Scampton South	0.85	1.00%
Stainton	0.85	1.00%
Gainsborough/Beckingham	0.85	1.00%
Glentworth	0.85	1.00%
East Glentworth	0.85	1.00%
Corringham	0.85	1.00%
Long Clawson	0.85	1.00%
Rempstone	0.85	1.00%
Bothamsall	0.85	1.00%
Egmanton	0.85	1.00%
South Leverton	0.85	1.00%
Goodworth	3.40	4.00%
Stockbridge	3.40	4.00%
Avington	3.40	4.00%
Albury	2.55	3.00%
Storrington	2.55	3.00%
PalmersWood	2.55	3.00%
Homdean	2.55	3.00%
Bletchingley	2.55	3.00%

Source: Dataroom

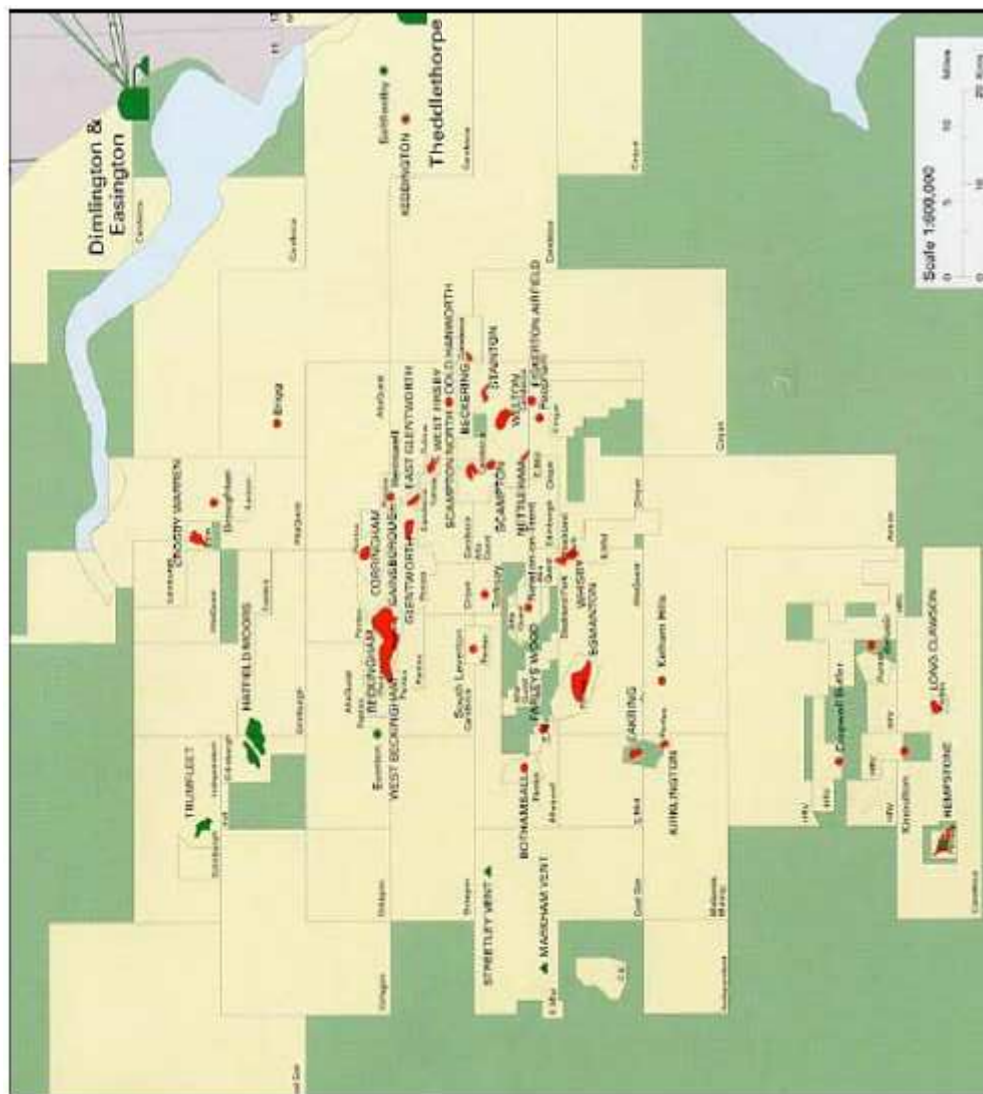
Table 5.1



Field Name	Star NPV by Field (£M)		
	1P	2P	3P
Cold Hanworth	(38)	3,399	5,460
Nettleham	(335)	(284)	1,834
Welton	38,768	51,059	60,169
Scampton North	4,614	7,036	7,600
Scampton South	(63)	543	1,503
Stainton	0	841	1,770
Gainsborough/Beckingham	(3,161)	3,329	5,118
Glentworth	5,178	9,461	11,438
East Glentworth	440	1,753	3,111
Corringham	2,070	4,788	8,104
Long Clawson	4,234	6,404	8,944
Rempstone	(189)	92	470
Bothamsall	1,921	3,841	4,570
Egmanton	(916)	(910)	27
South Leverton	11	622	881
Goodworth	835	1,360	2,306
Stockbridge	16,562	22,837	27,473
Avington	76	258	2,893
Albury	(889)	(822)	(716)
Storrington	(498)	(334)	(135)
PalmersWood	(1,141)	(936)	749
Hordean	2,571	6,980	9,495
Bletchingley	722	5,969	13,727
<b>Total</b>	<b>70,771</b>	<b>127,285</b>	<b>176,791</b>
<b>Total NPV</b>	<b>91,271</b>	<b>147,489</b>	<b>196,581</b>

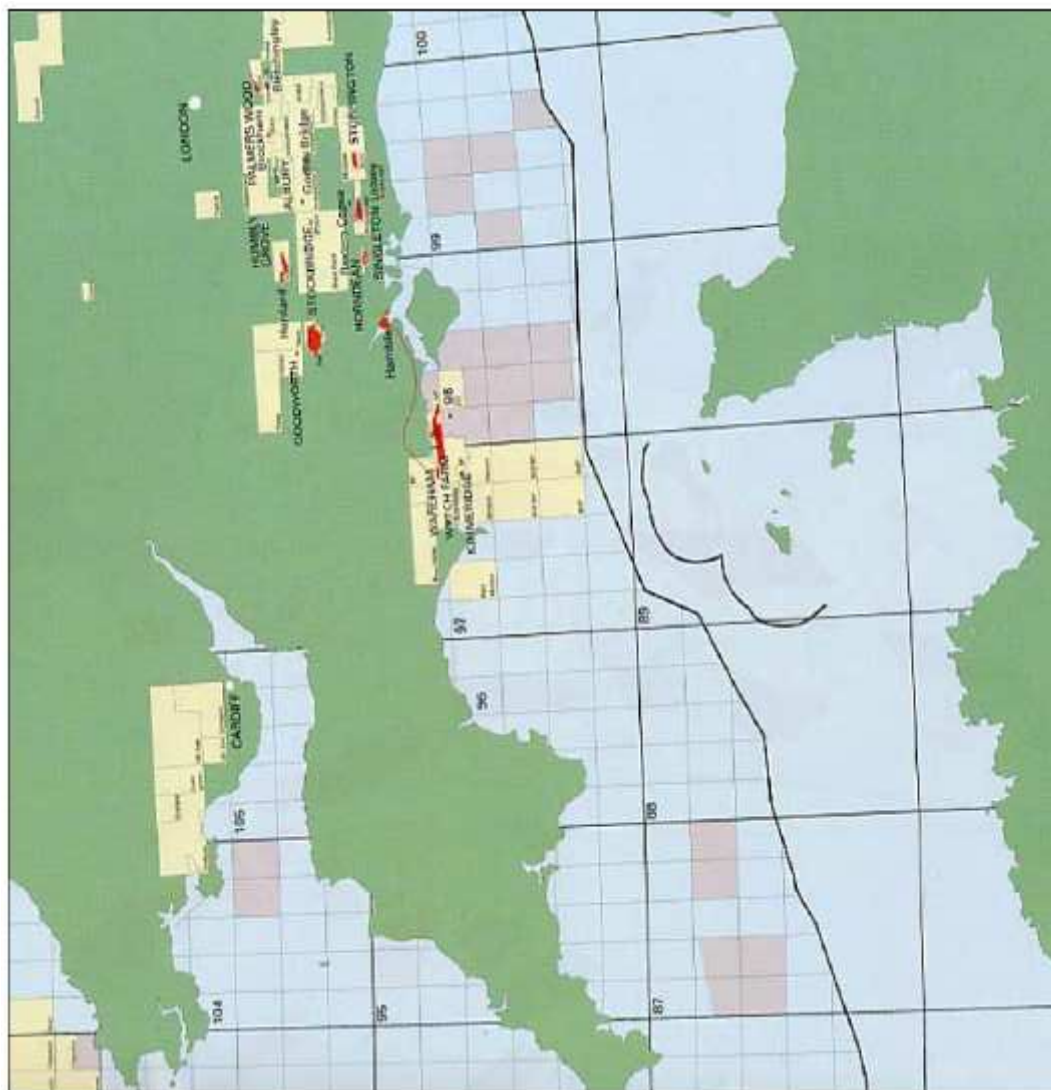
Source: Senergy Analysis

Table 5.2



Source:

Figure 1.1



**Figure 1.2**

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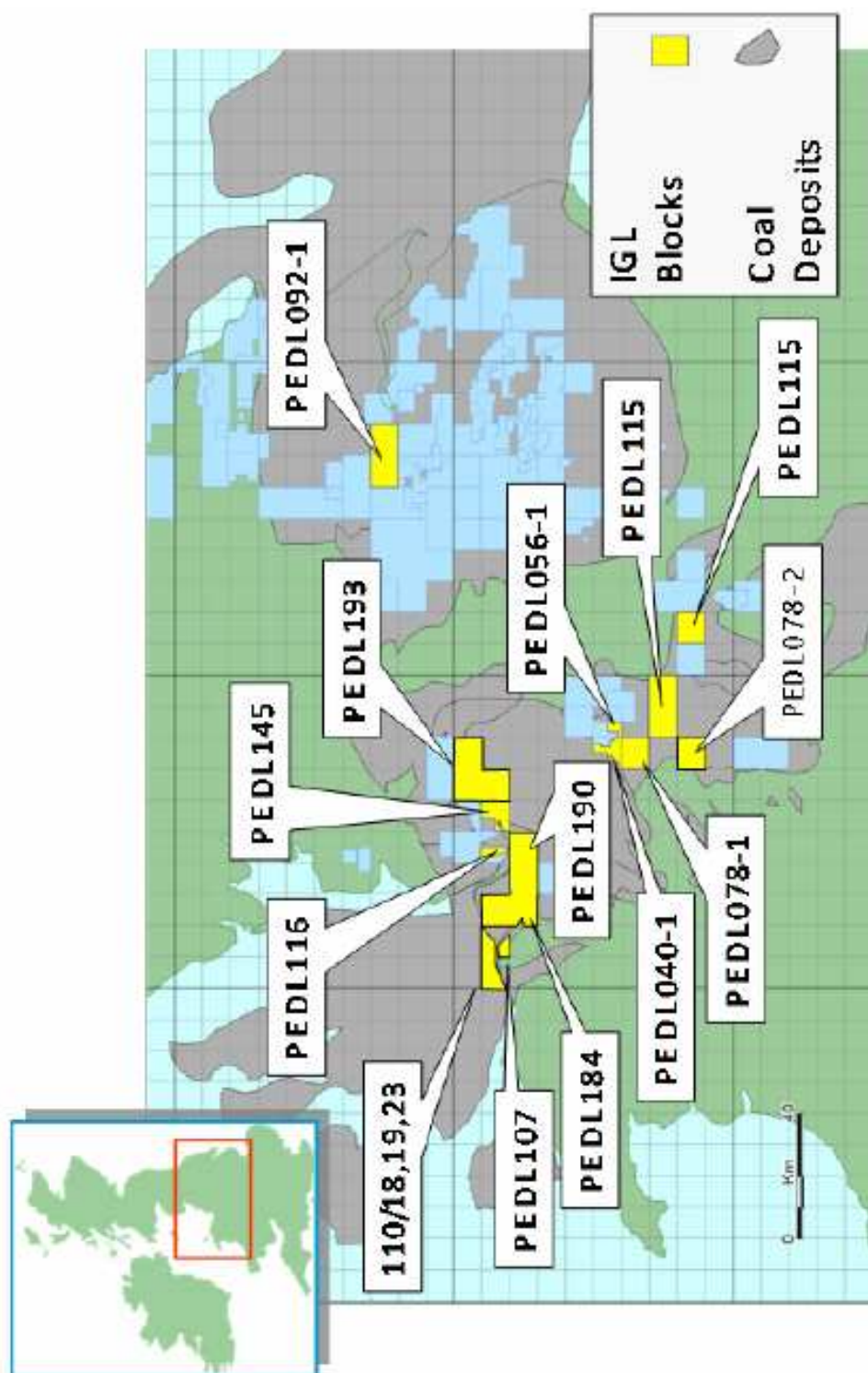
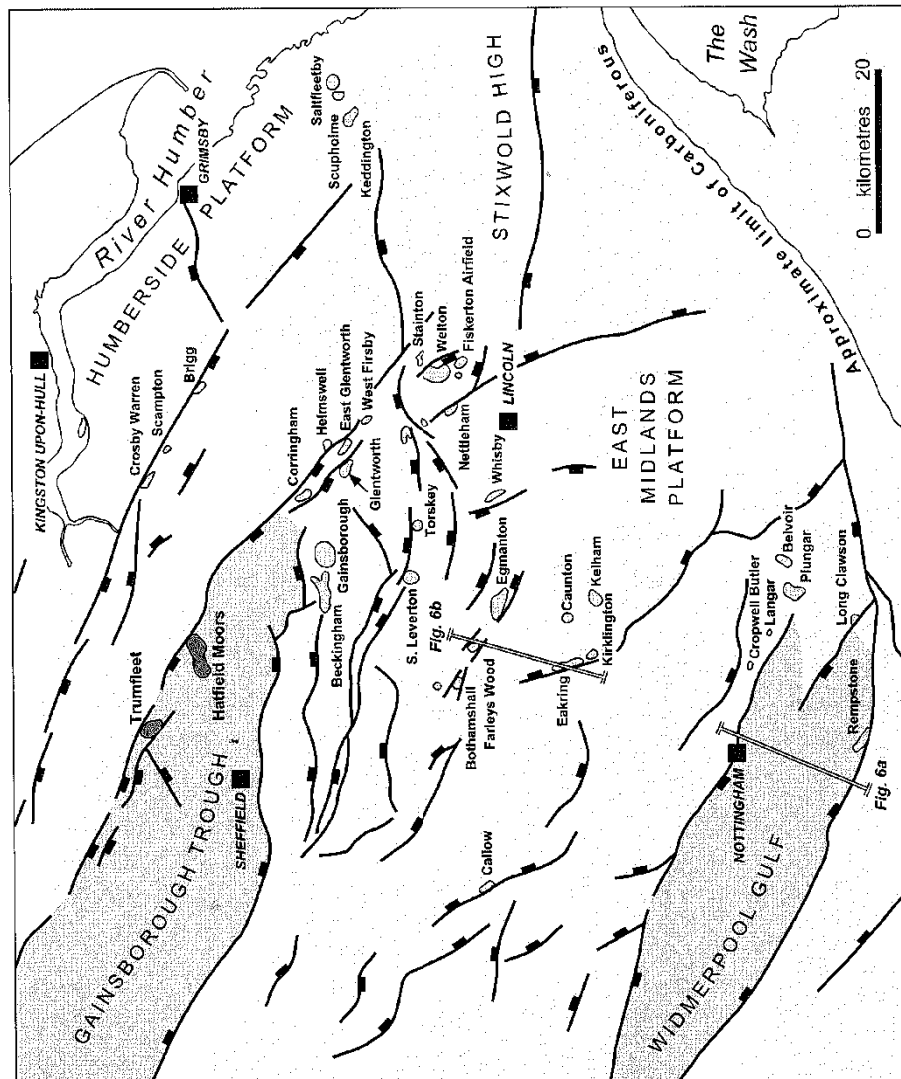


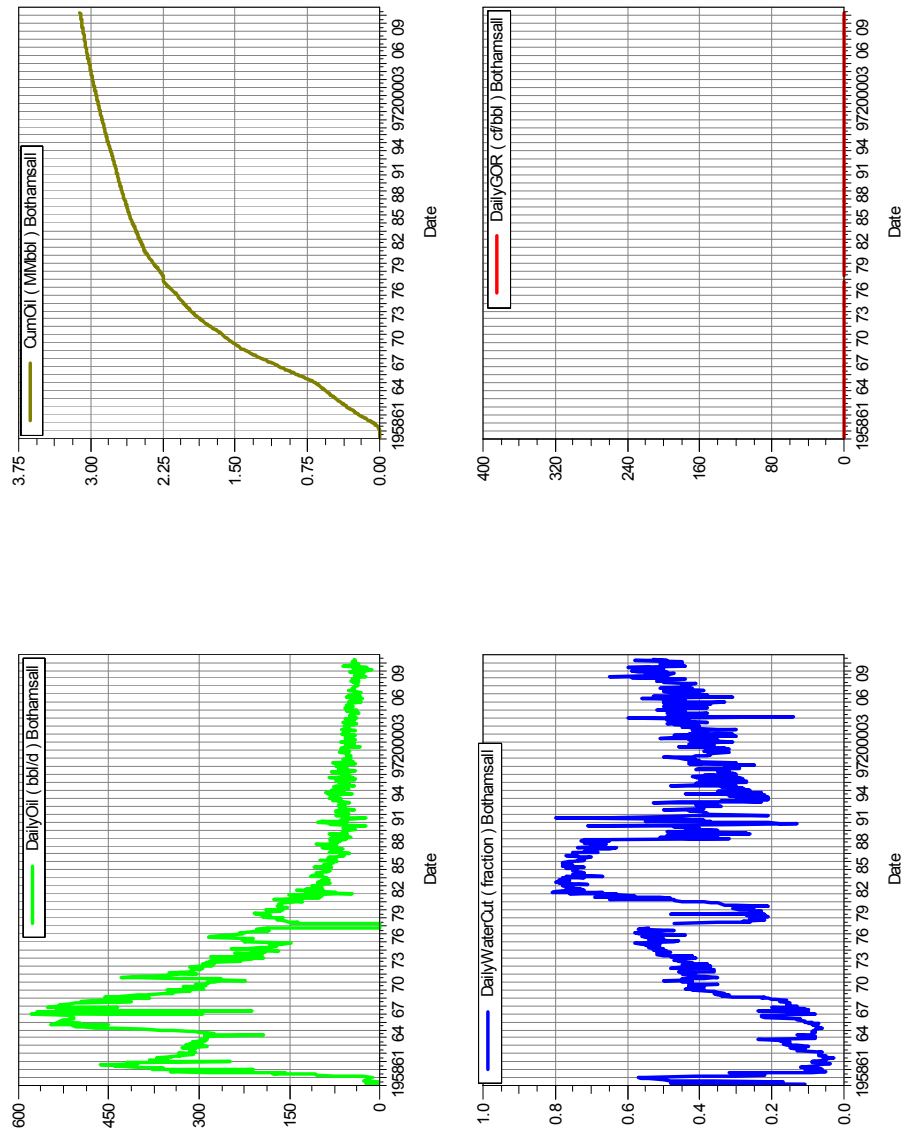
Figure 1.3

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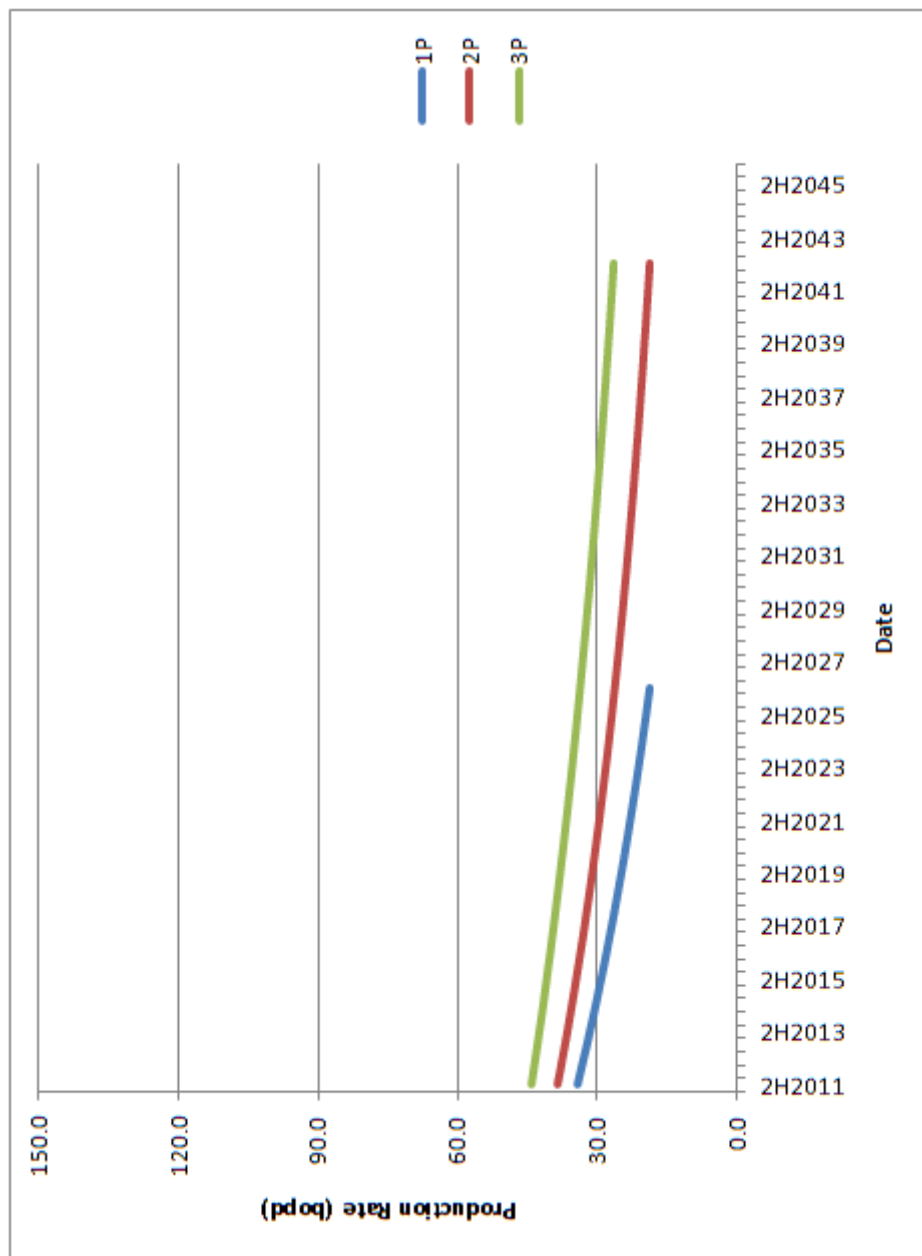
Source: Geological Society Memoir 20, Figure 18 on Page 30

Figure 2.1



Source: Senenergy Analysis

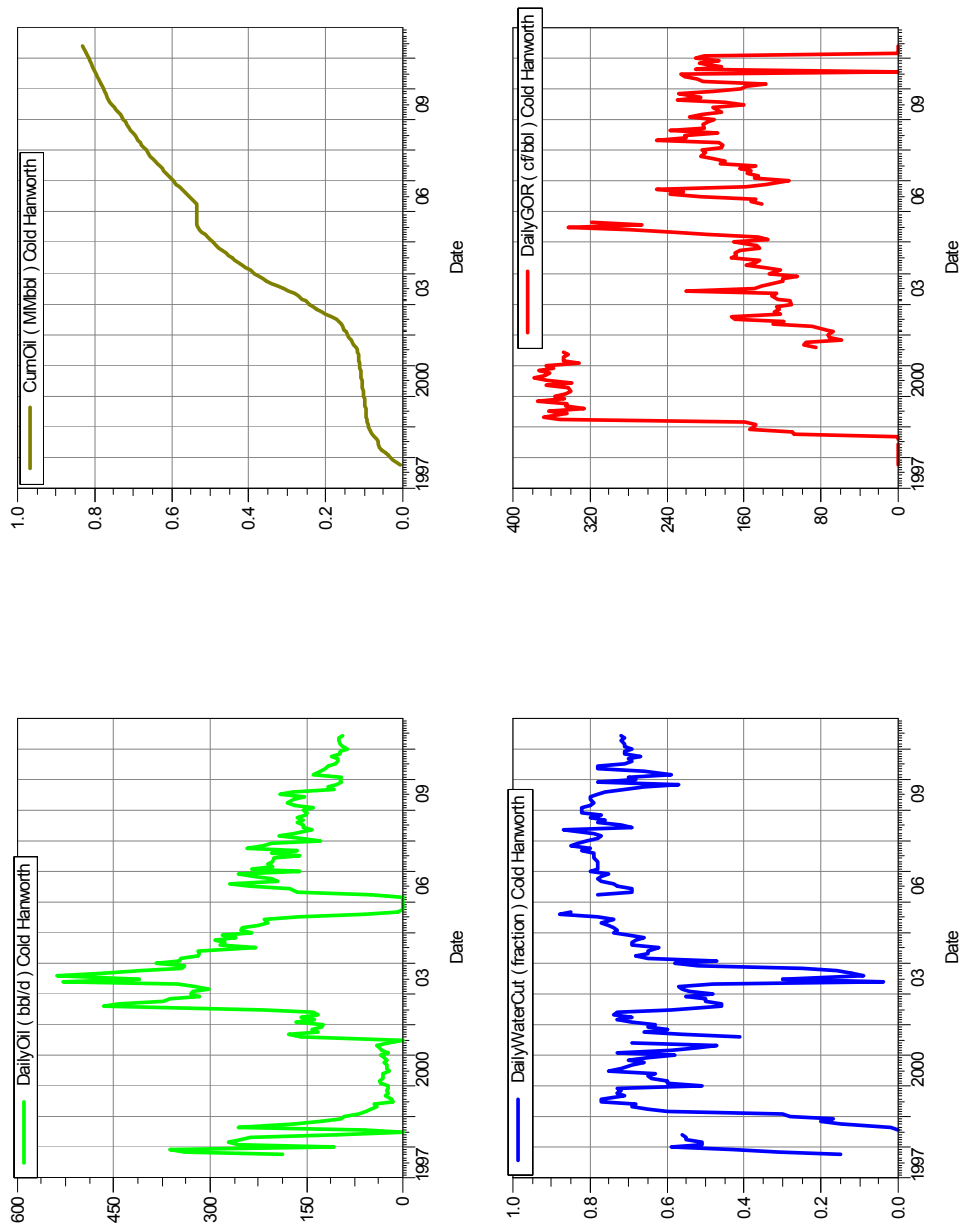
Figure 2.2



Source: Senergy Analysis

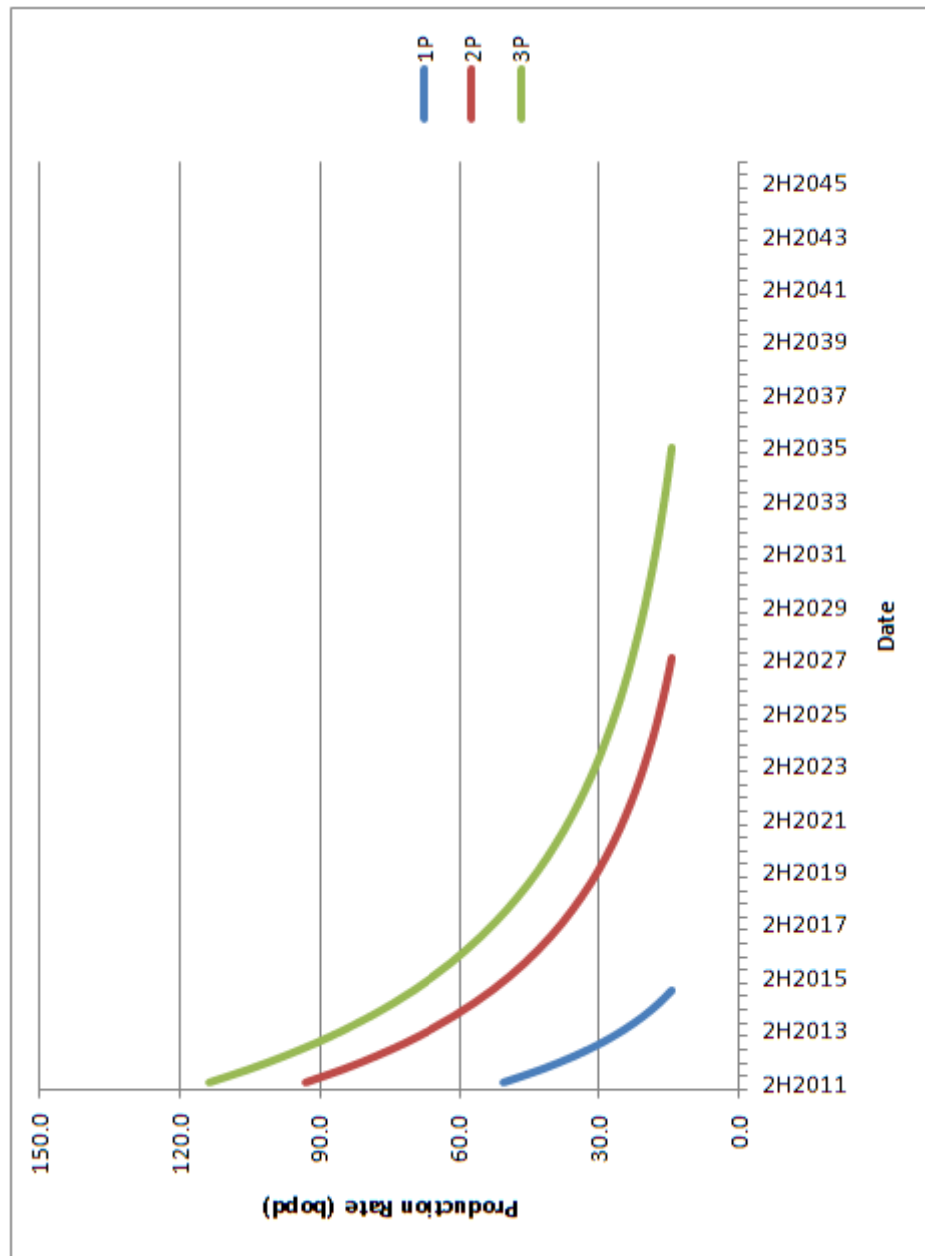
Figure 2.3





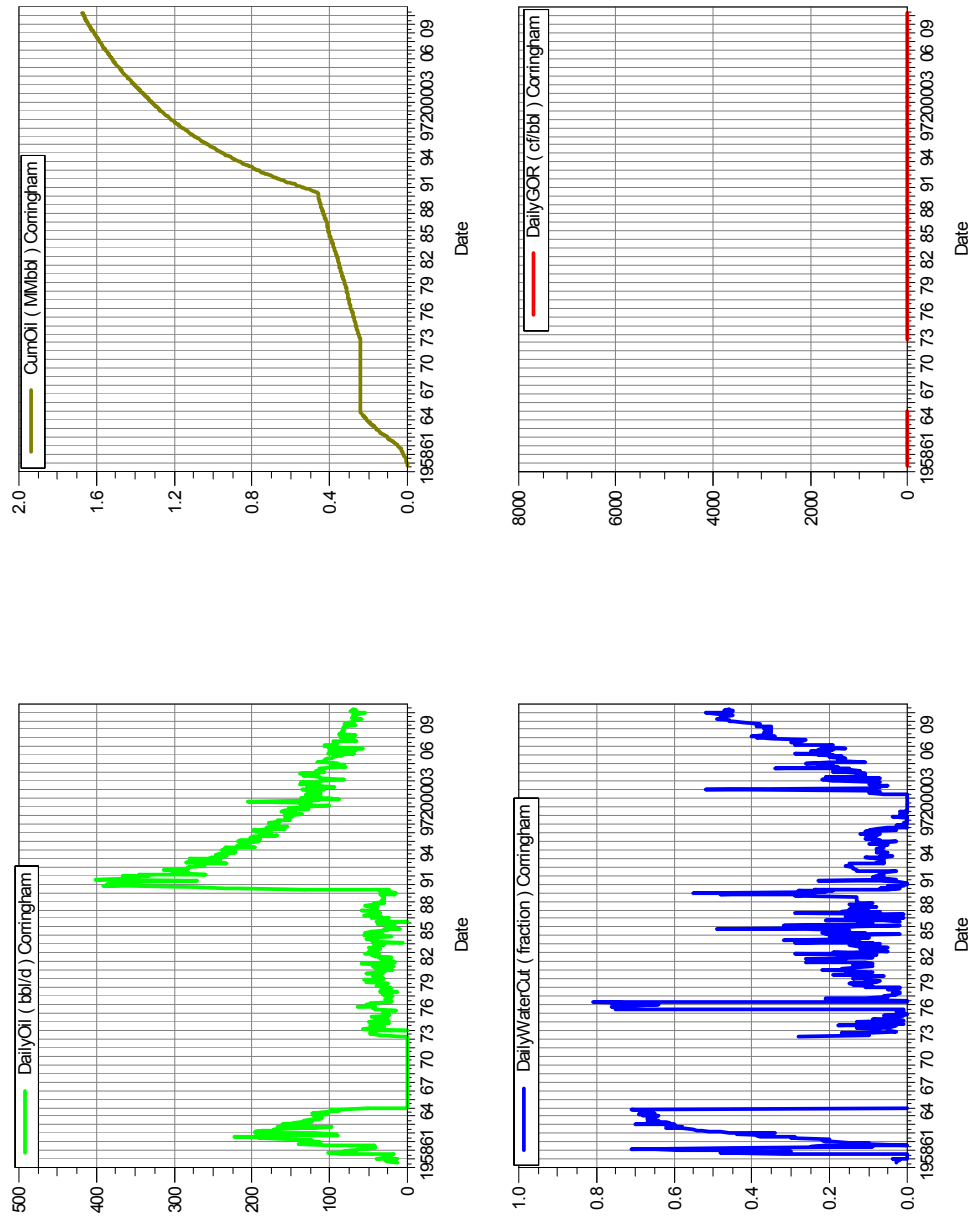
Source: Senergy Analysis

Figure 2.4



Source: Senergy Analysis

Figure 2.5



Source:

Figure 2.6

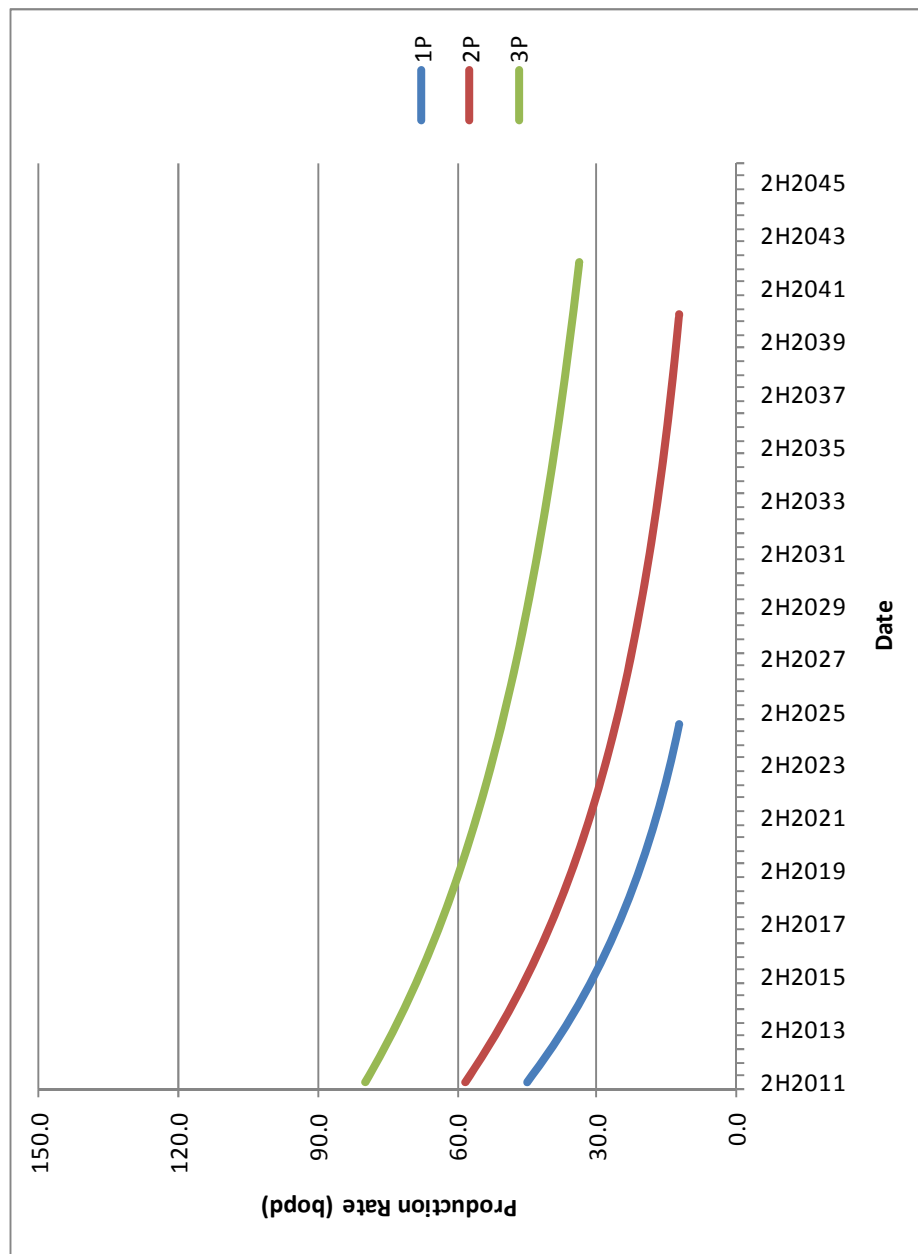
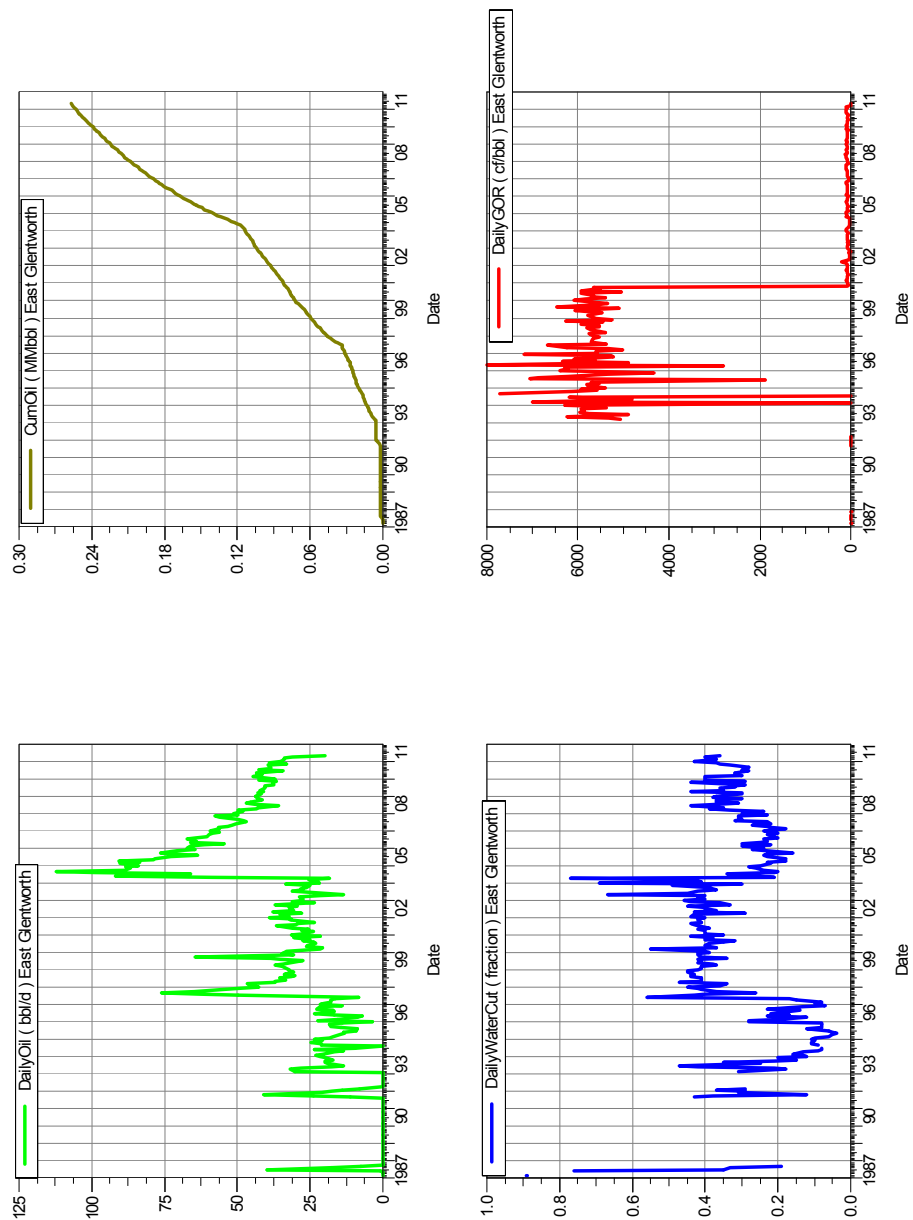


Figure 2.7

Source:



Source:

Figure 2.8

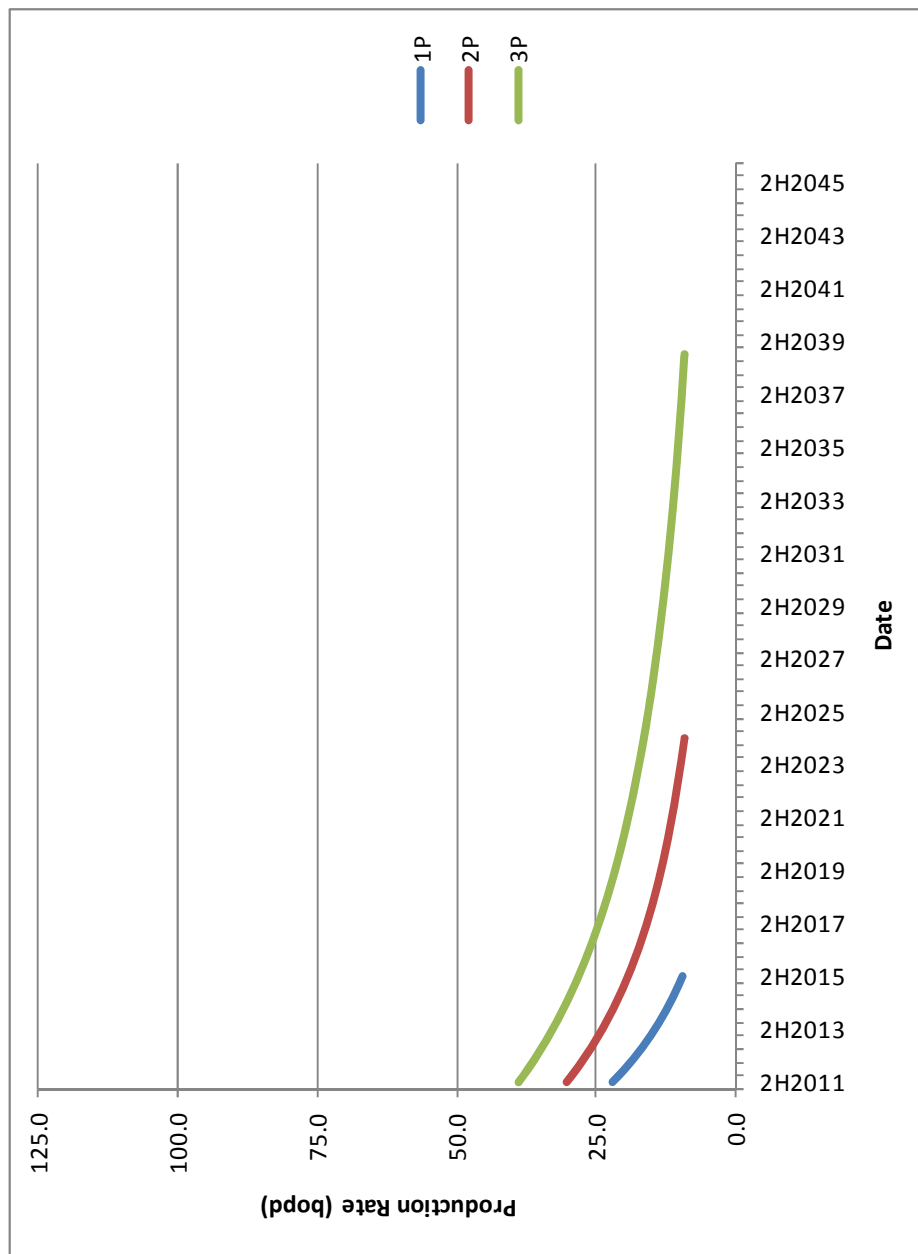
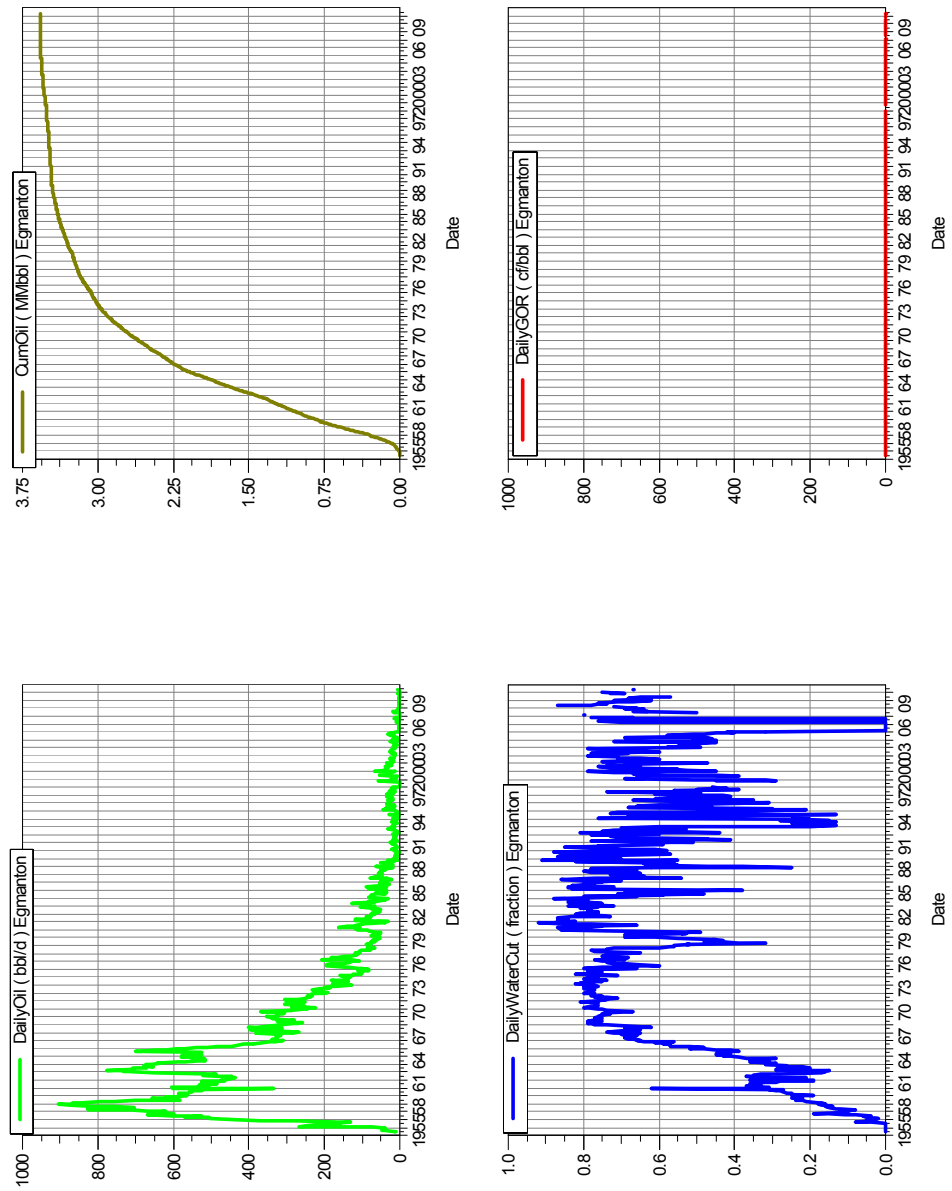


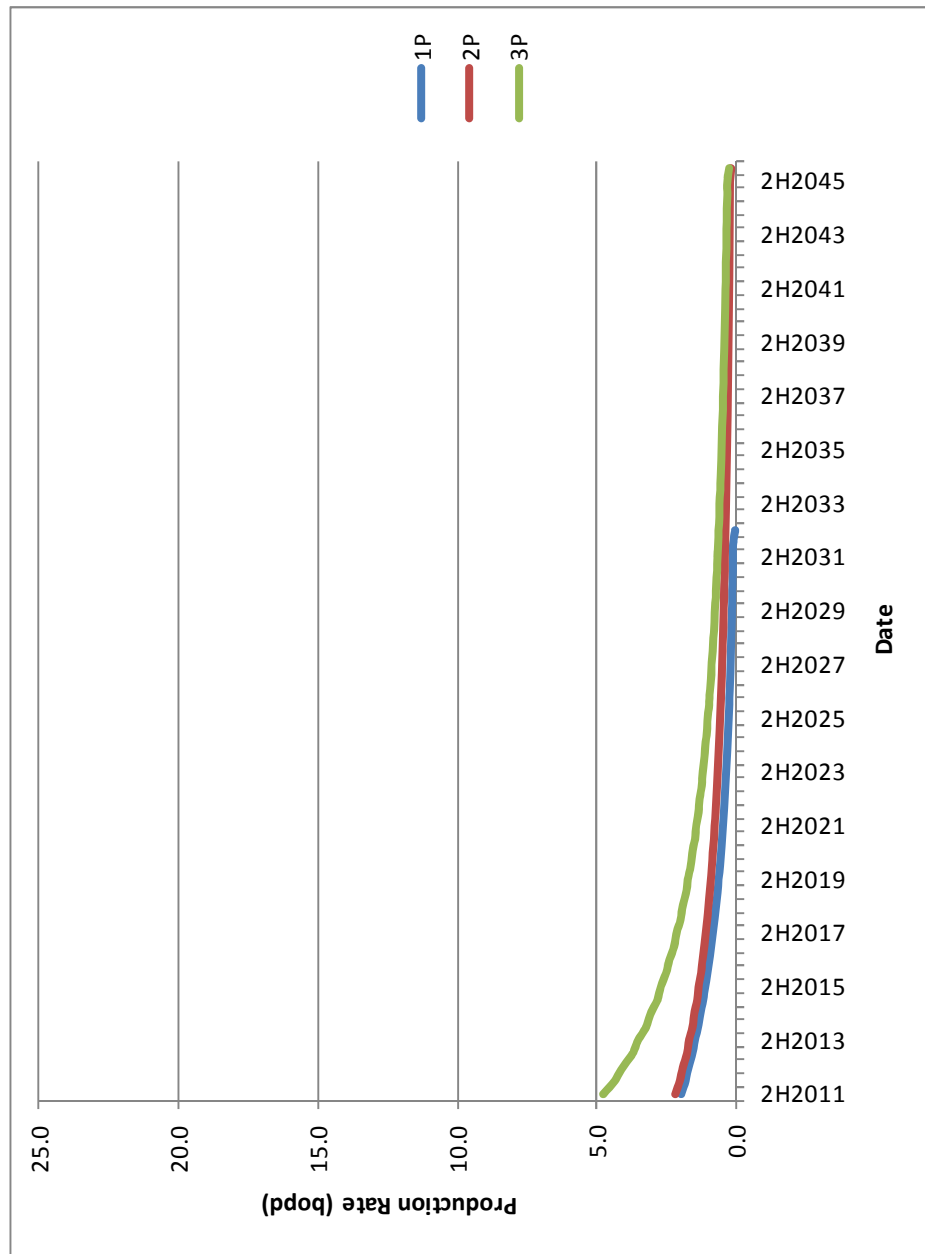
Figure 2.9

Source:



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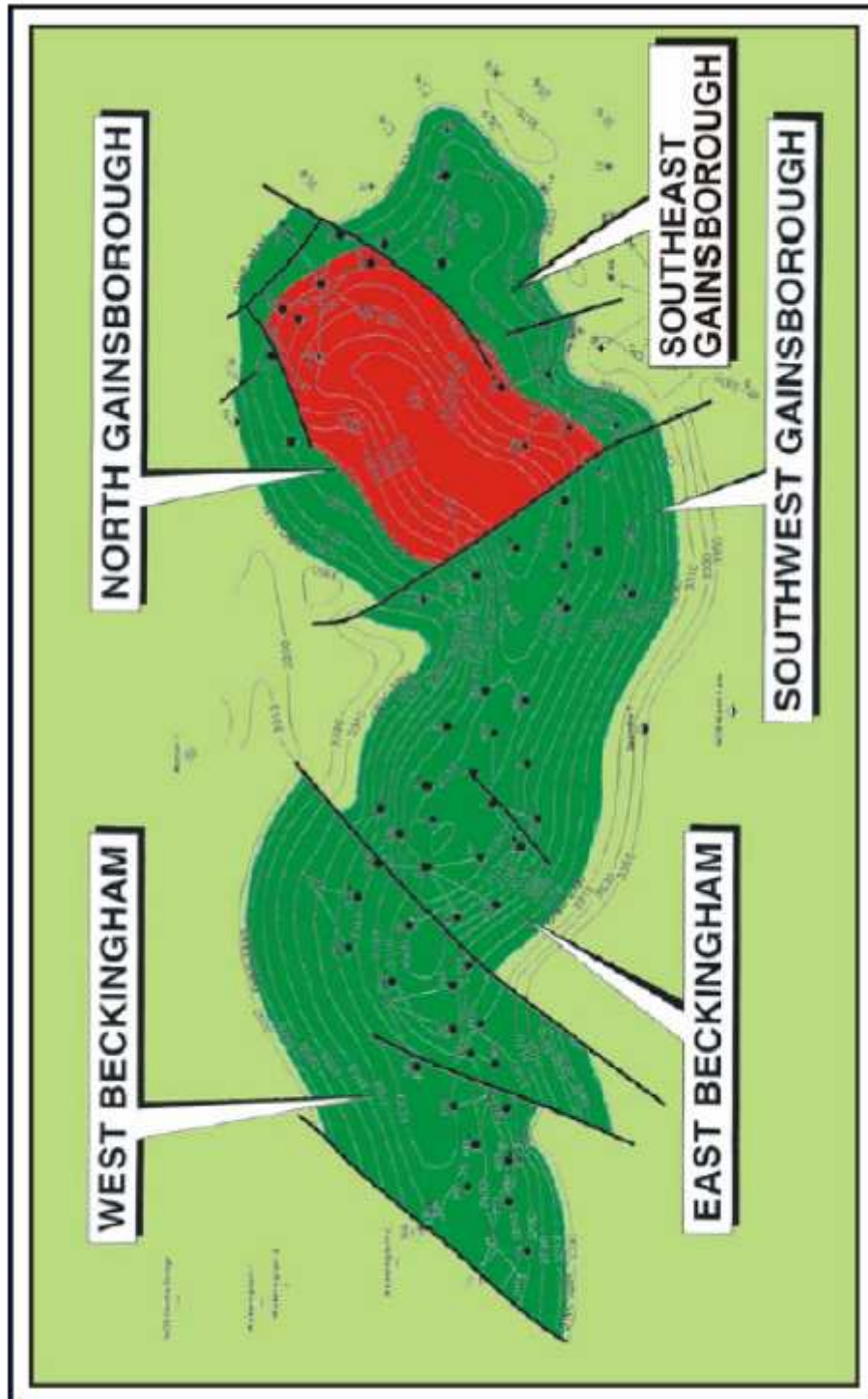
Figure 2.10



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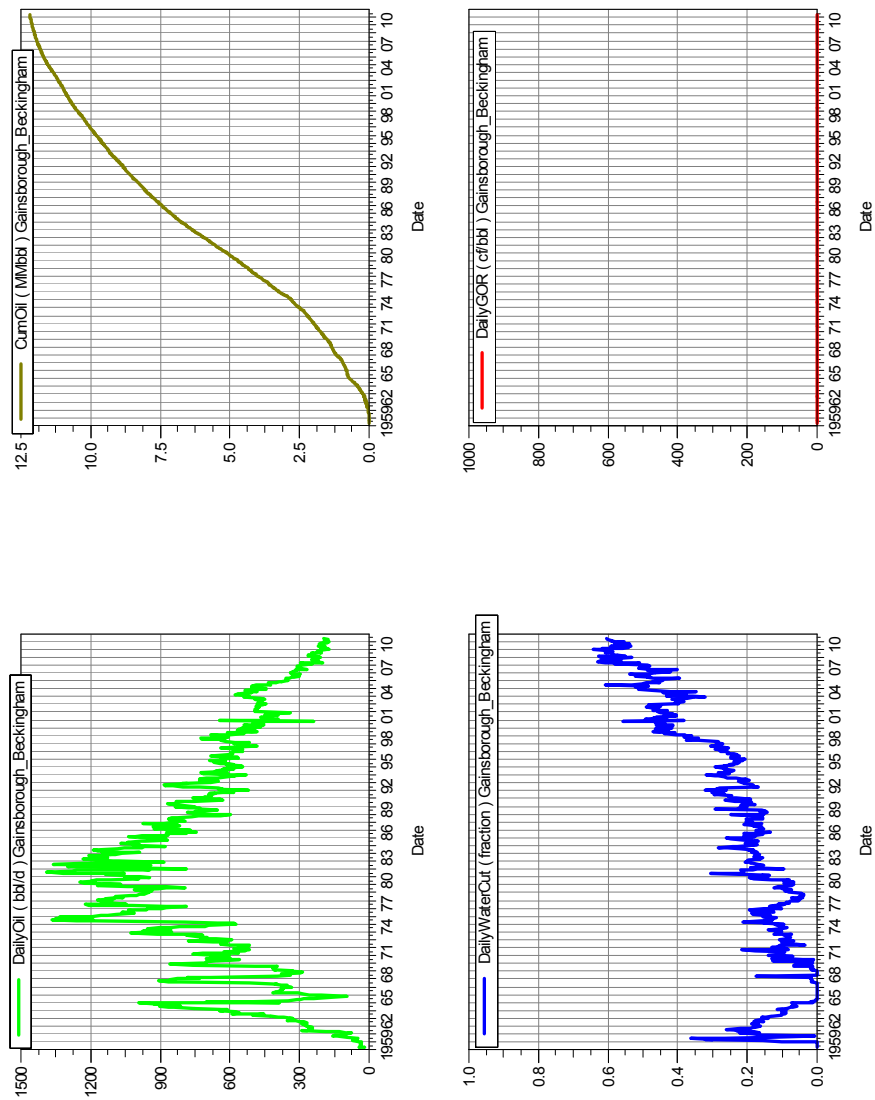
Figure 2.11





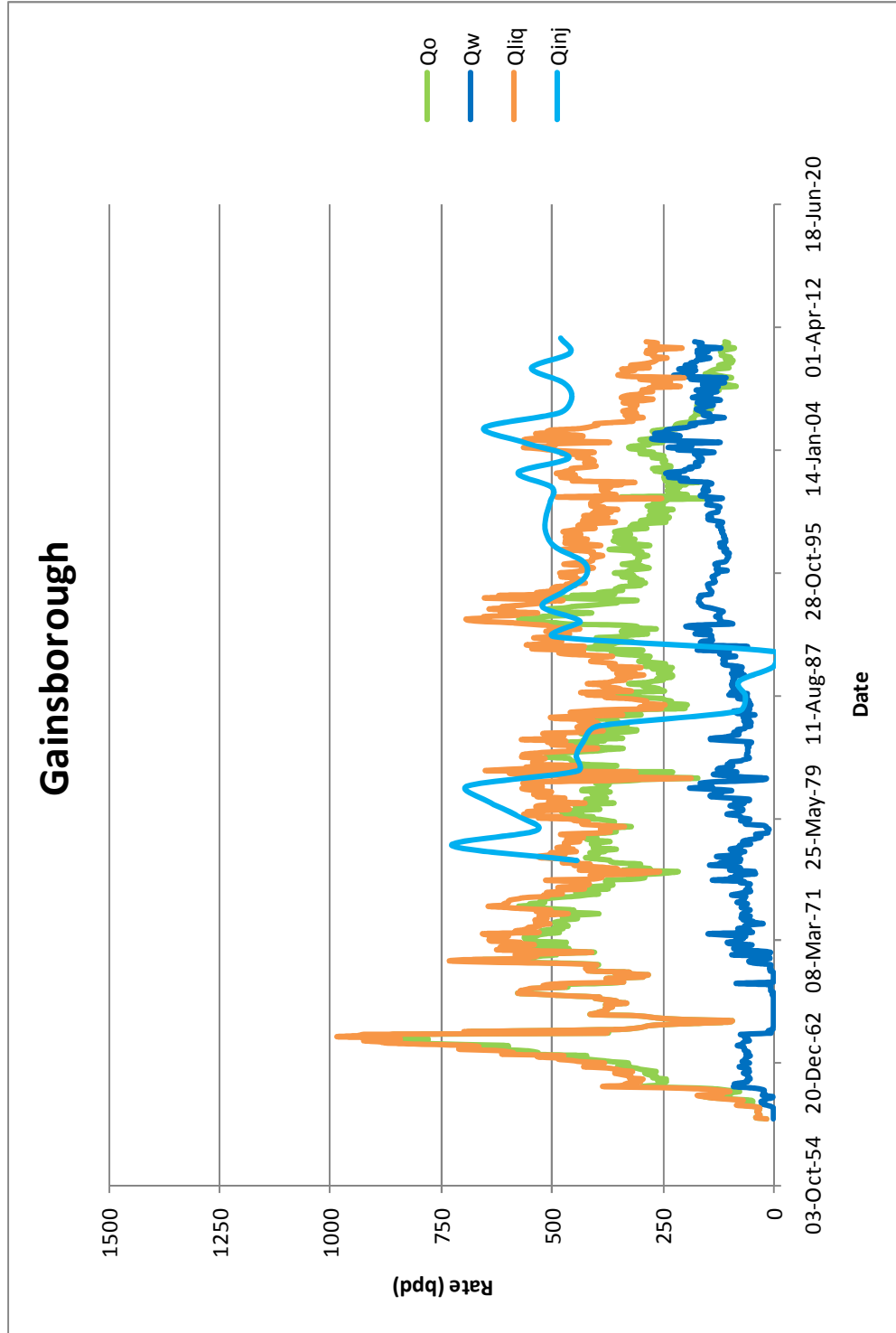
Source: RPS Reserves Report, Feb. 2008

Figure 2.12



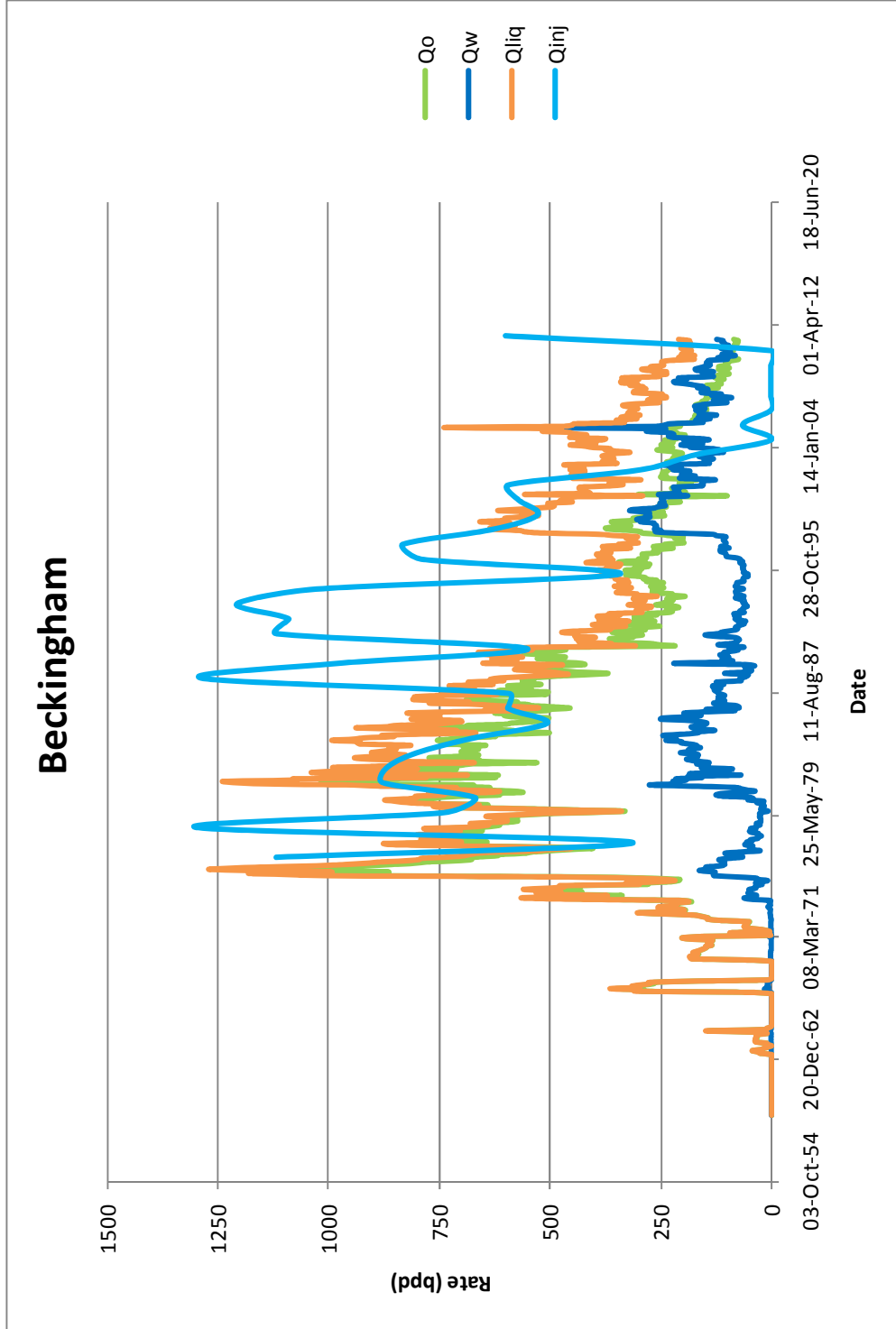
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Figure 2.13



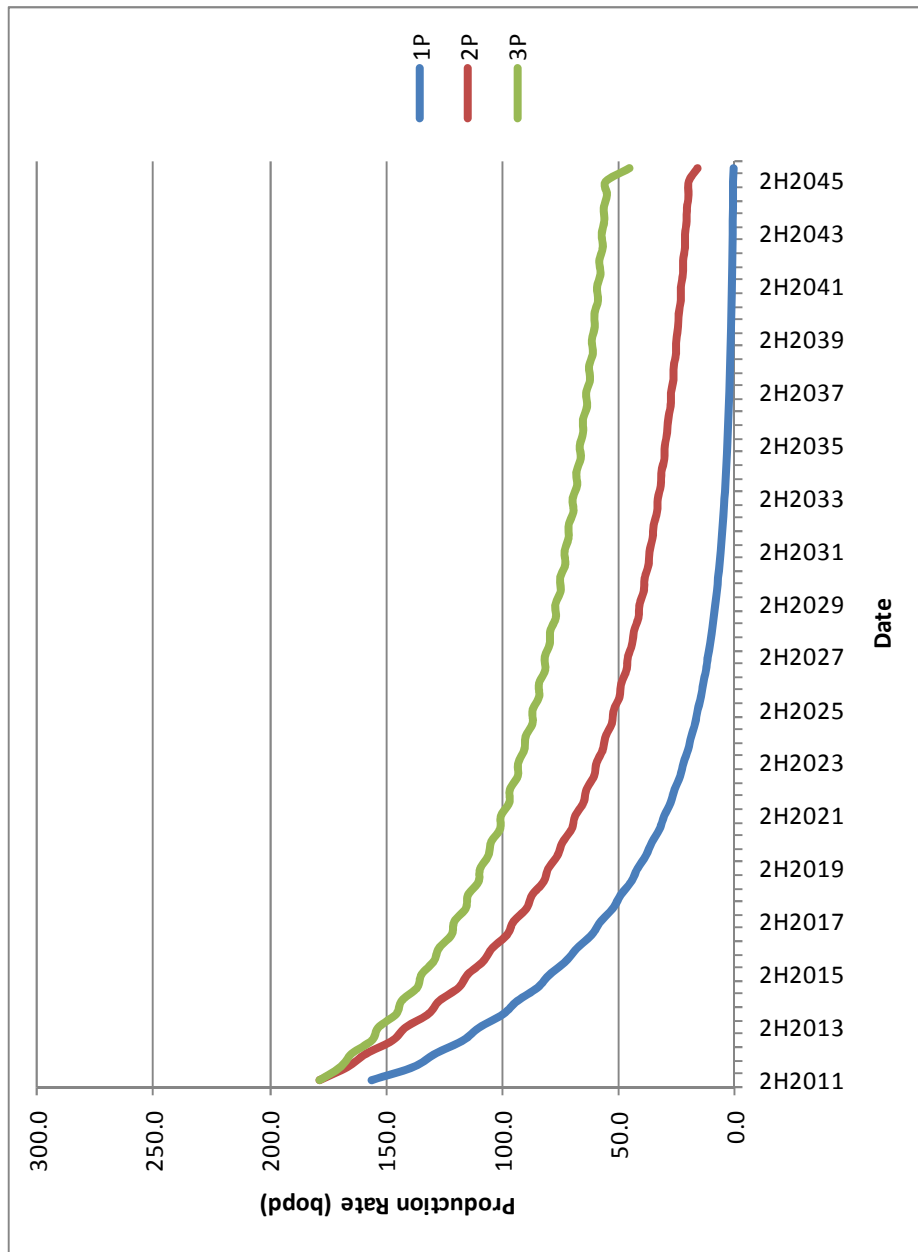
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Figure 2.14



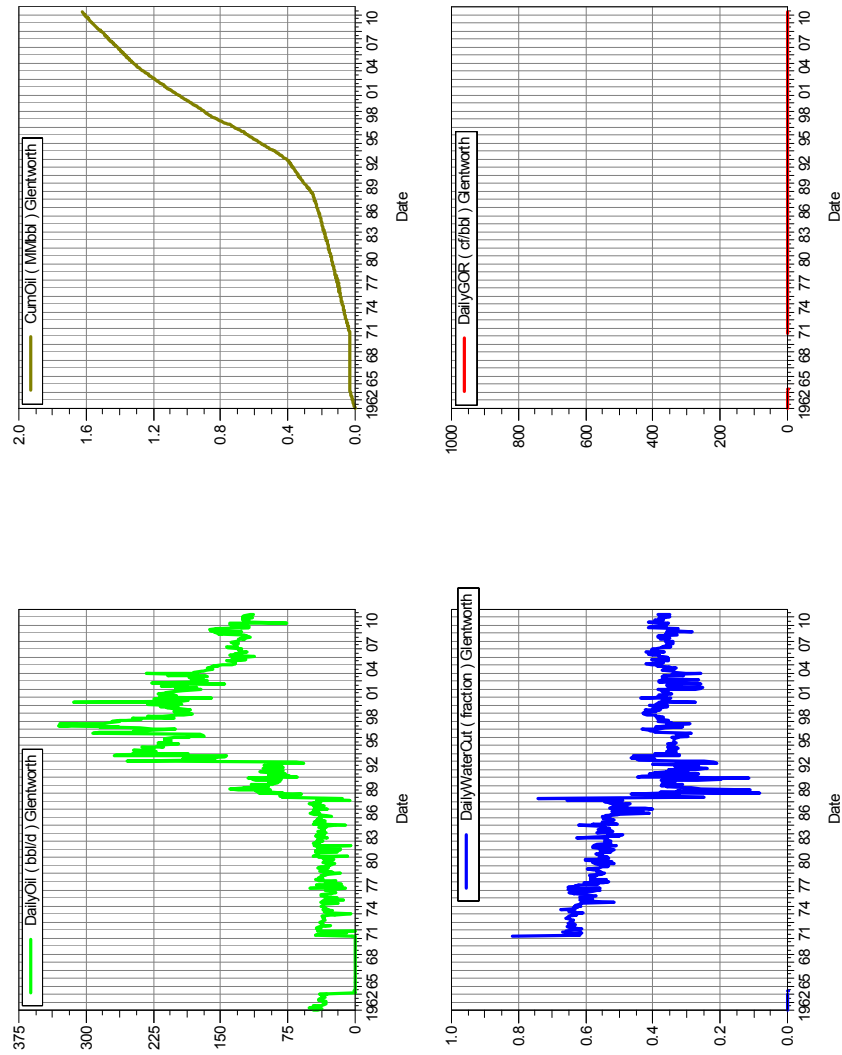
Source:

Figure 2.15



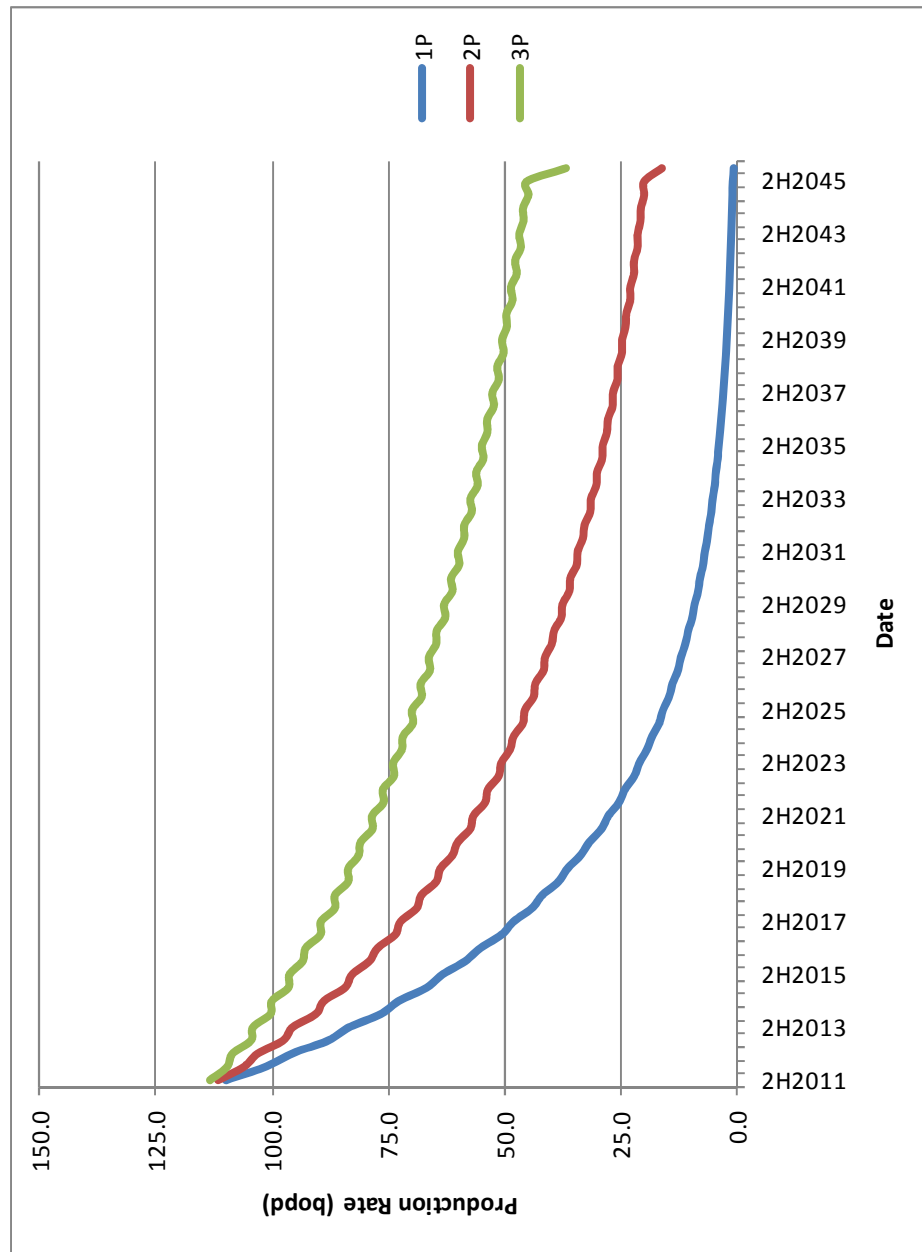
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Figure 2.16



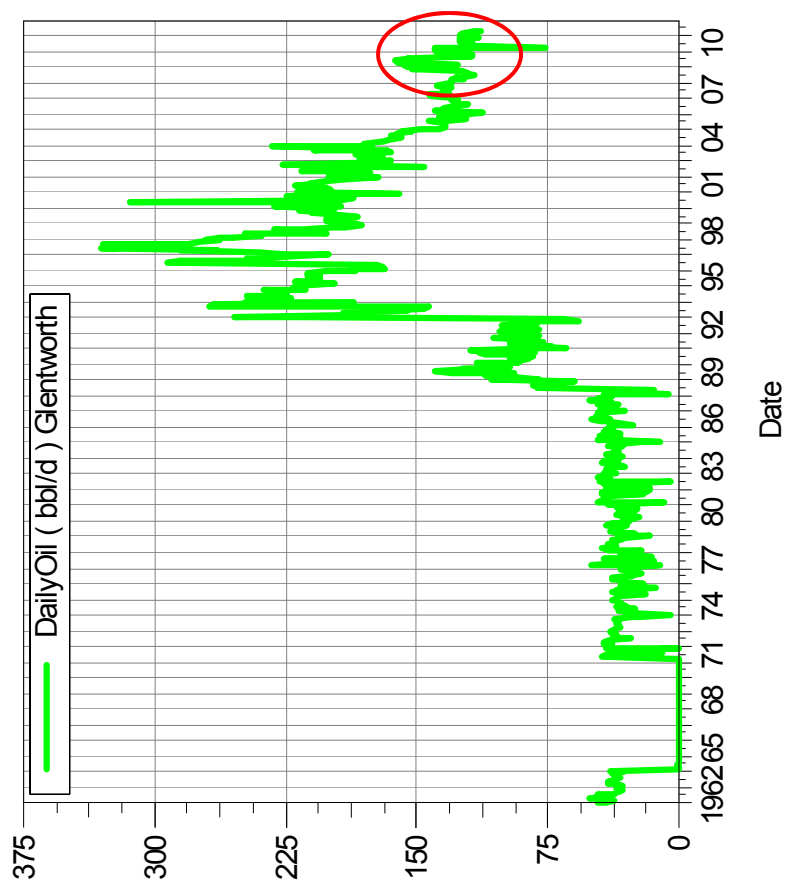
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Figure 2.17



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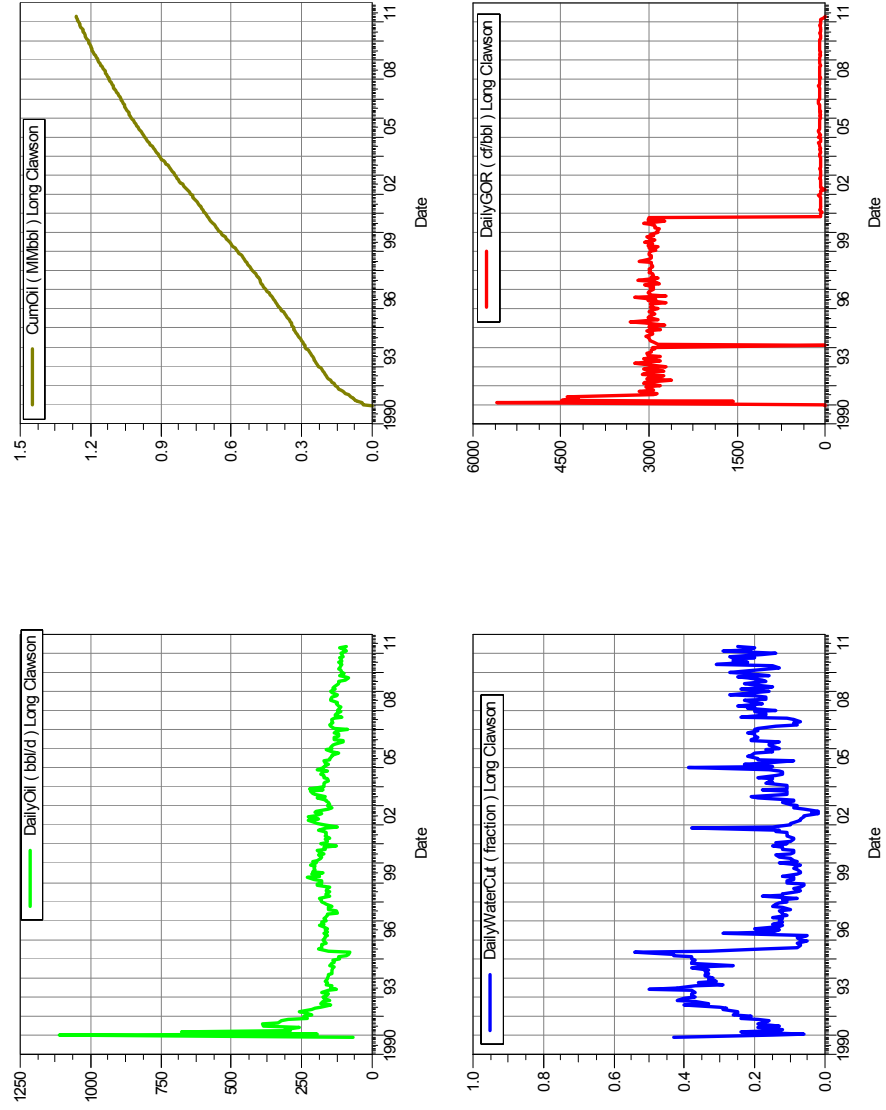
Figure 2.18



Source:

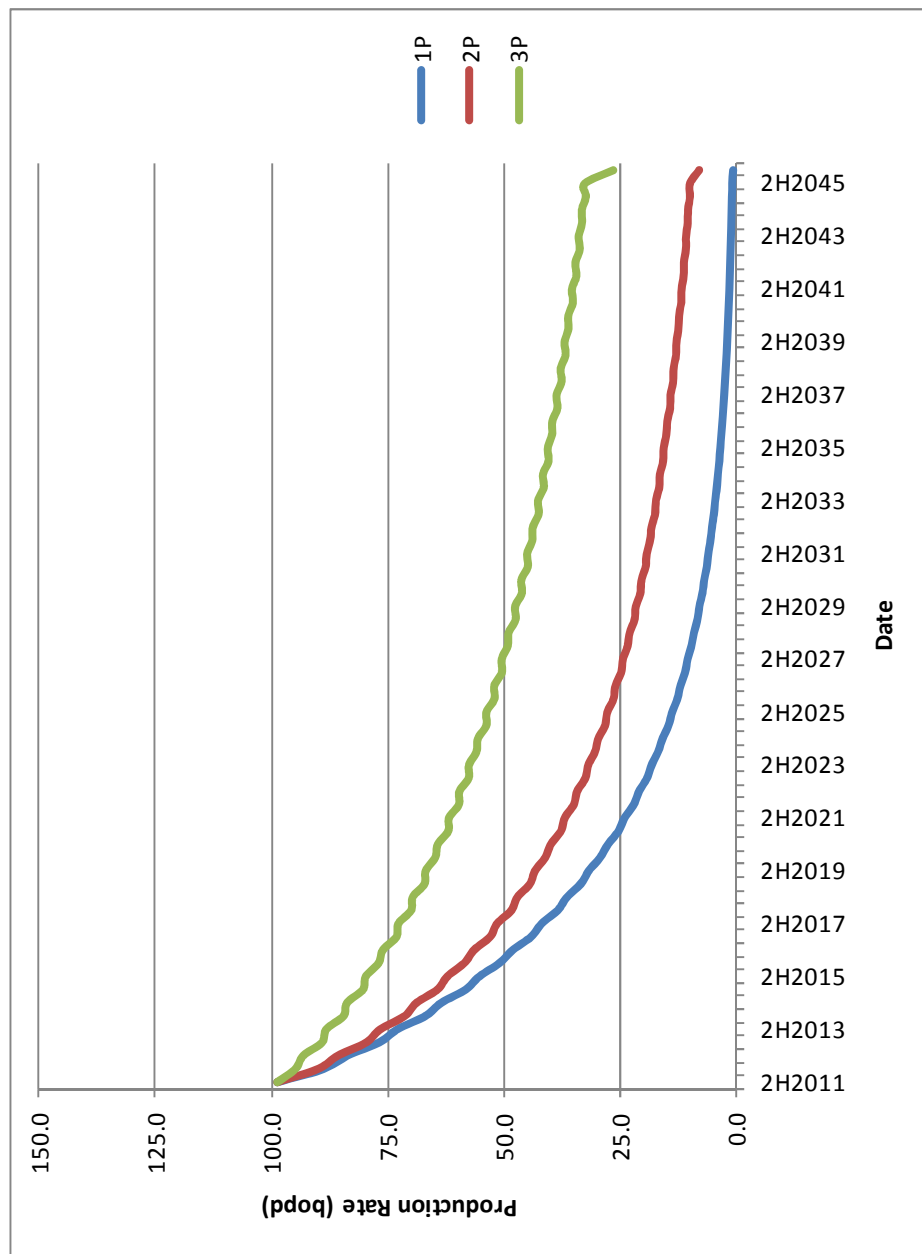
Figure 2.19





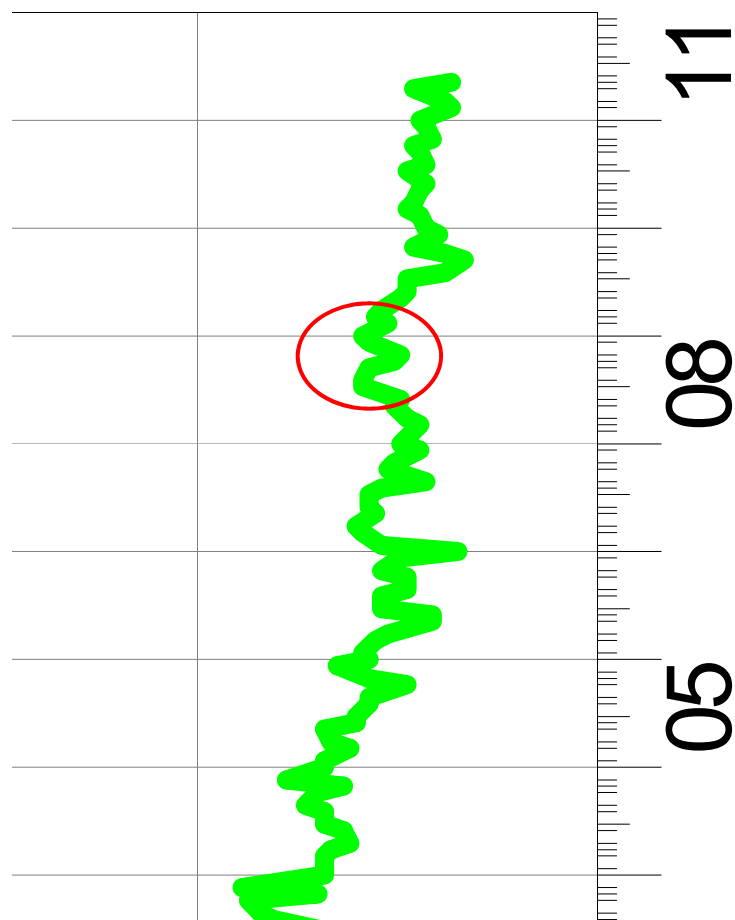
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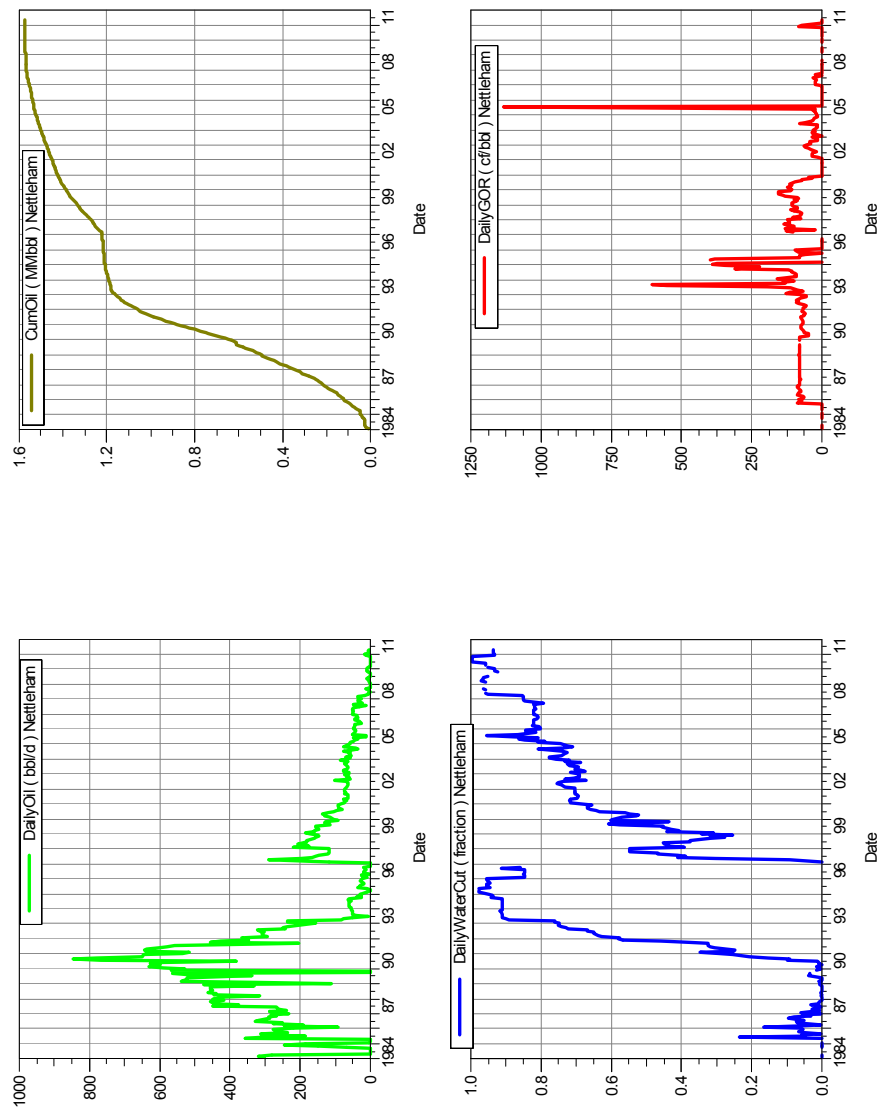
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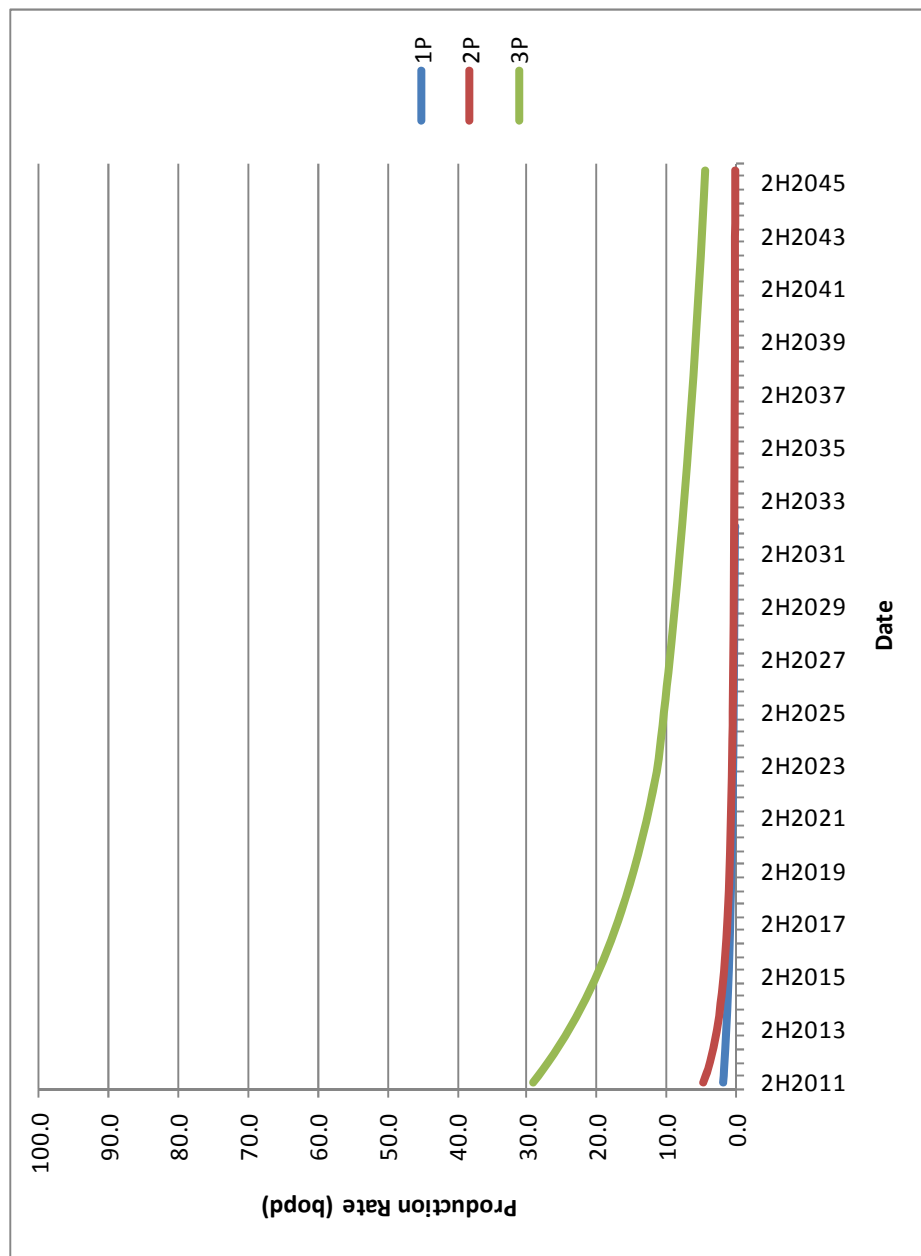
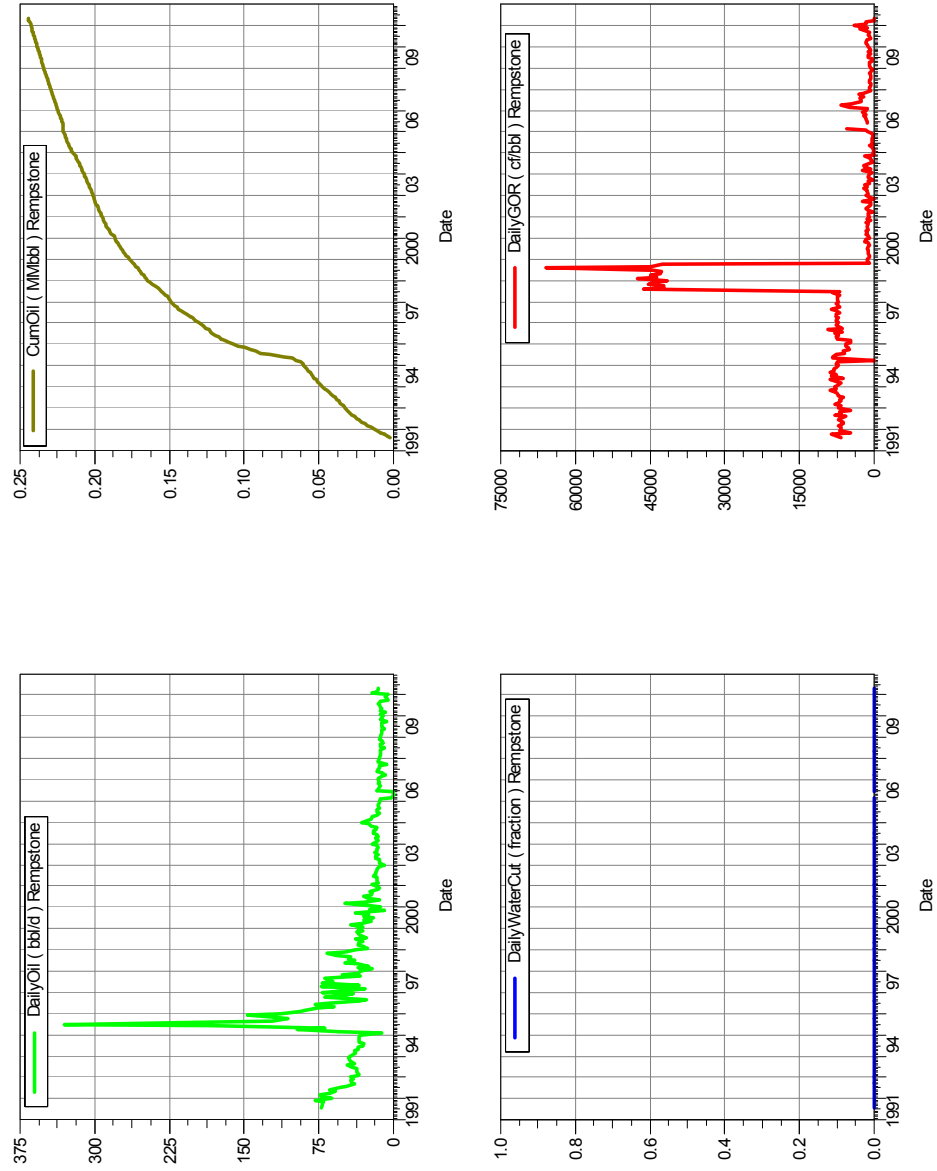


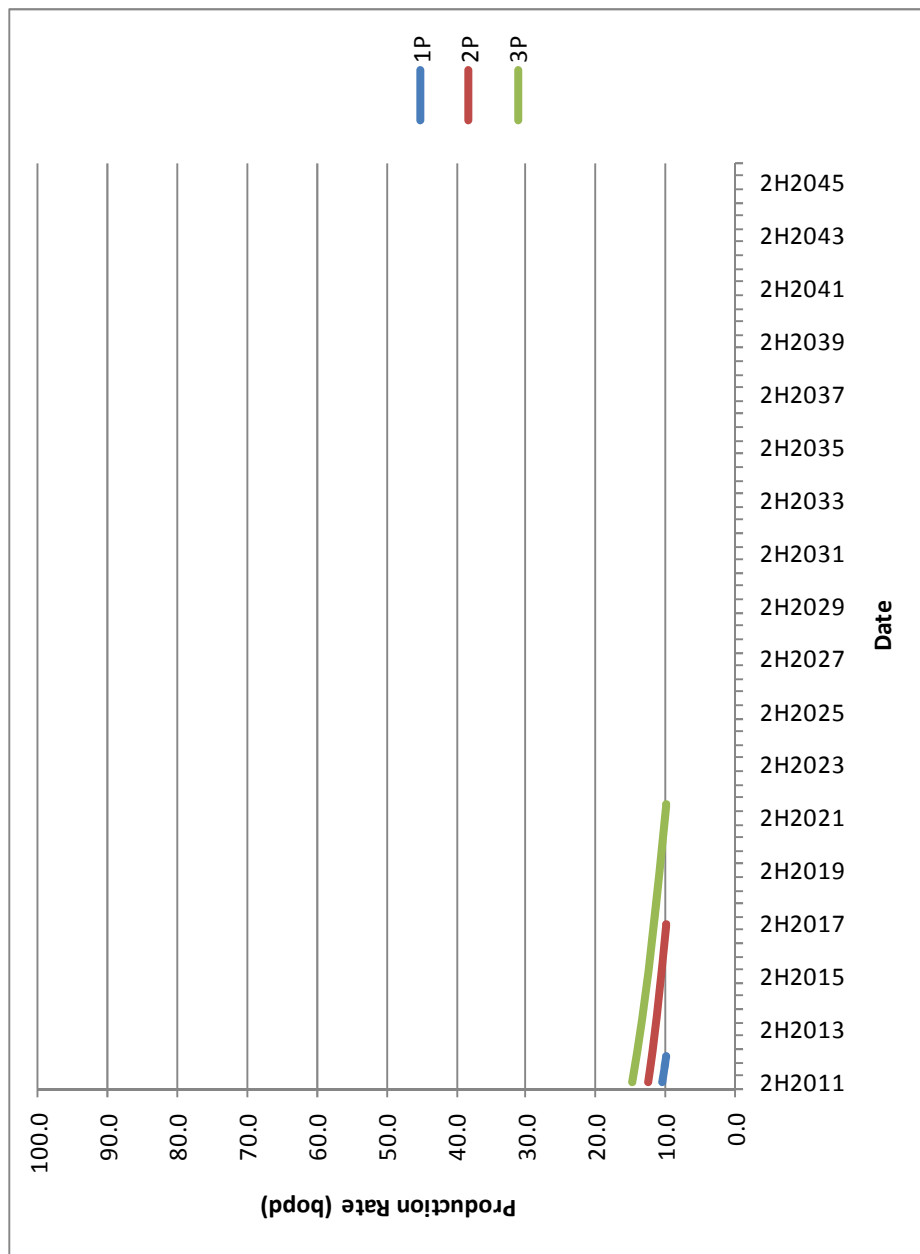
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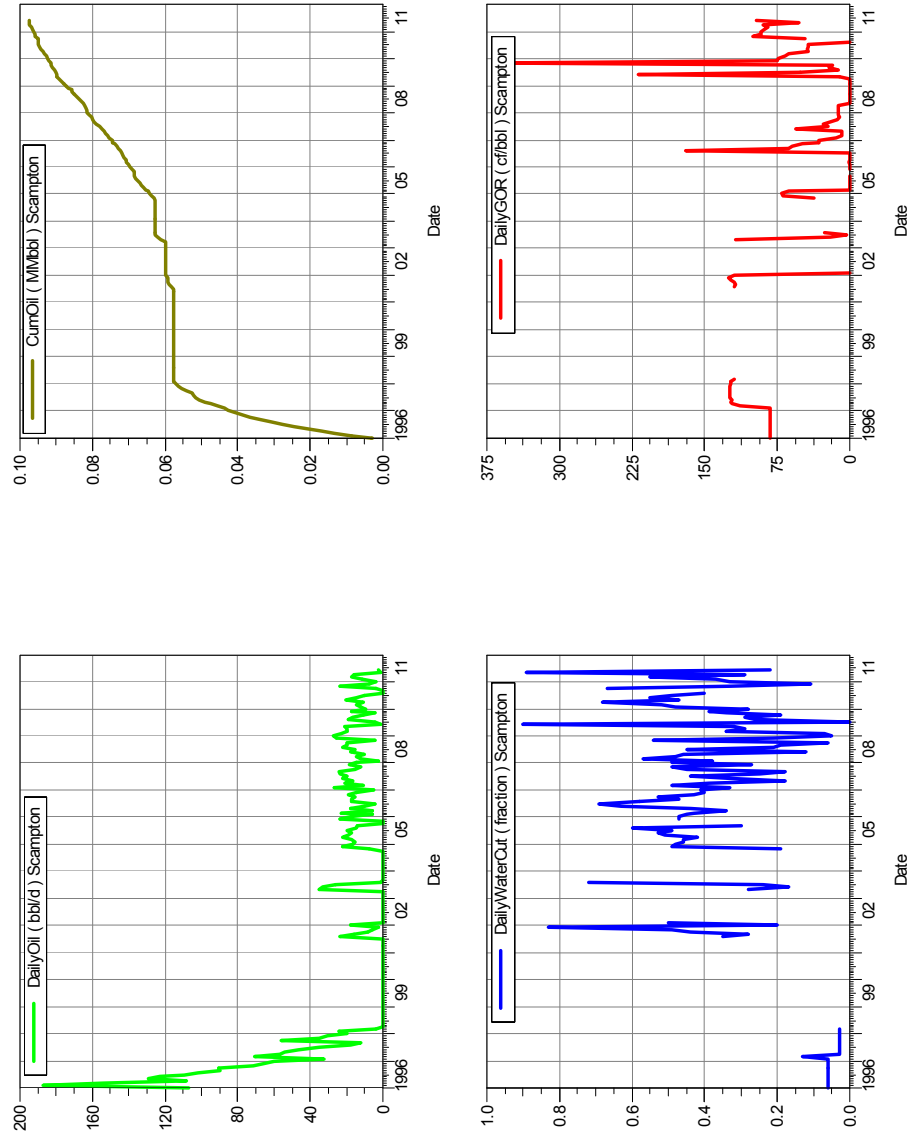
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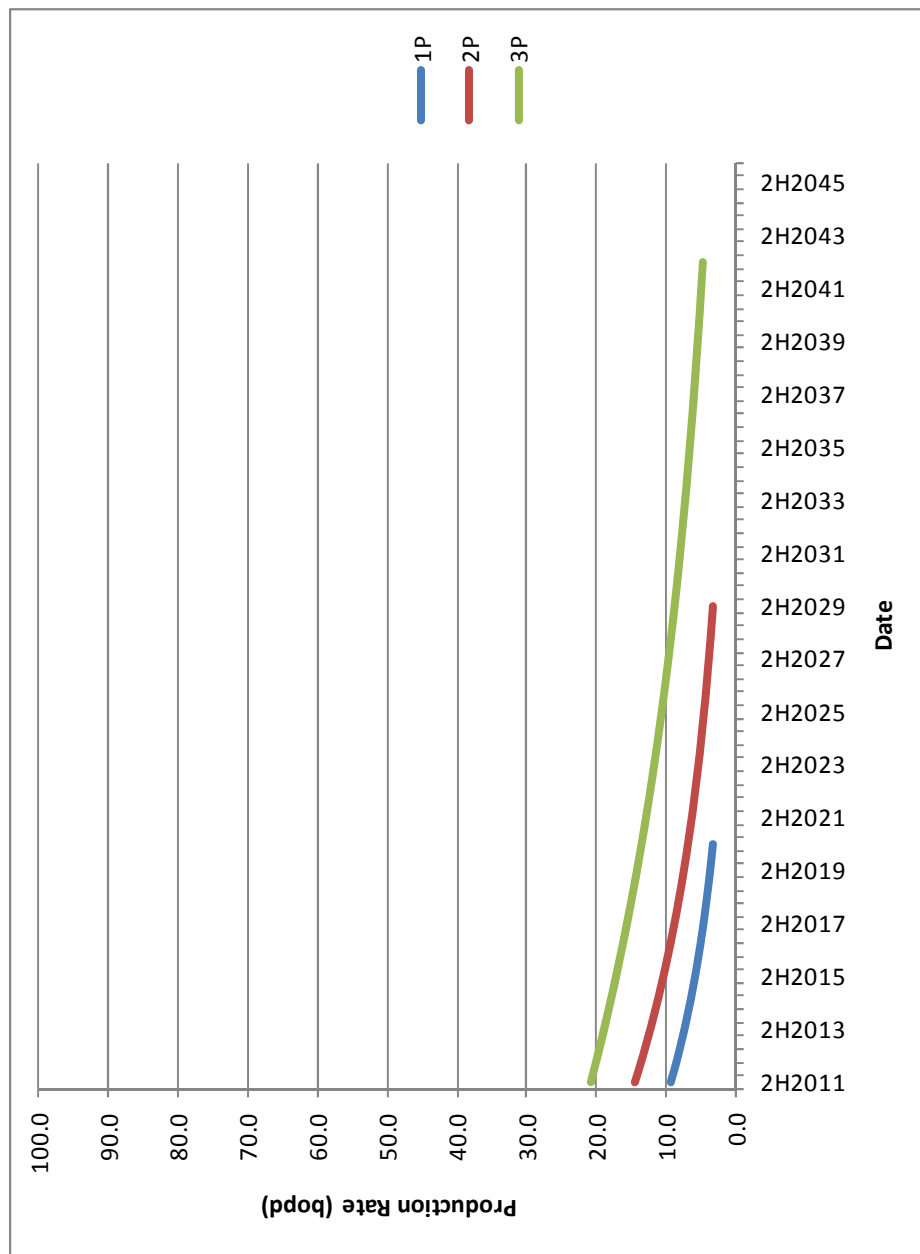
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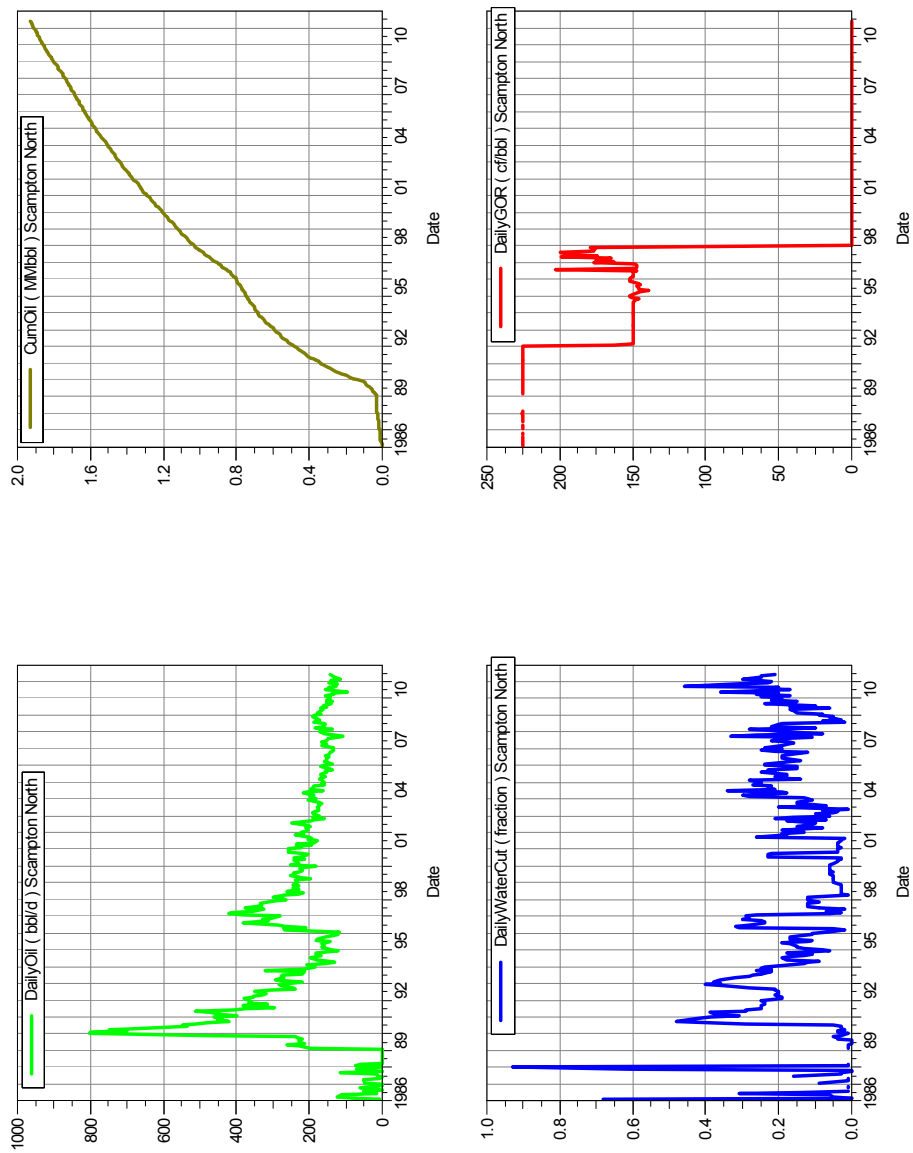
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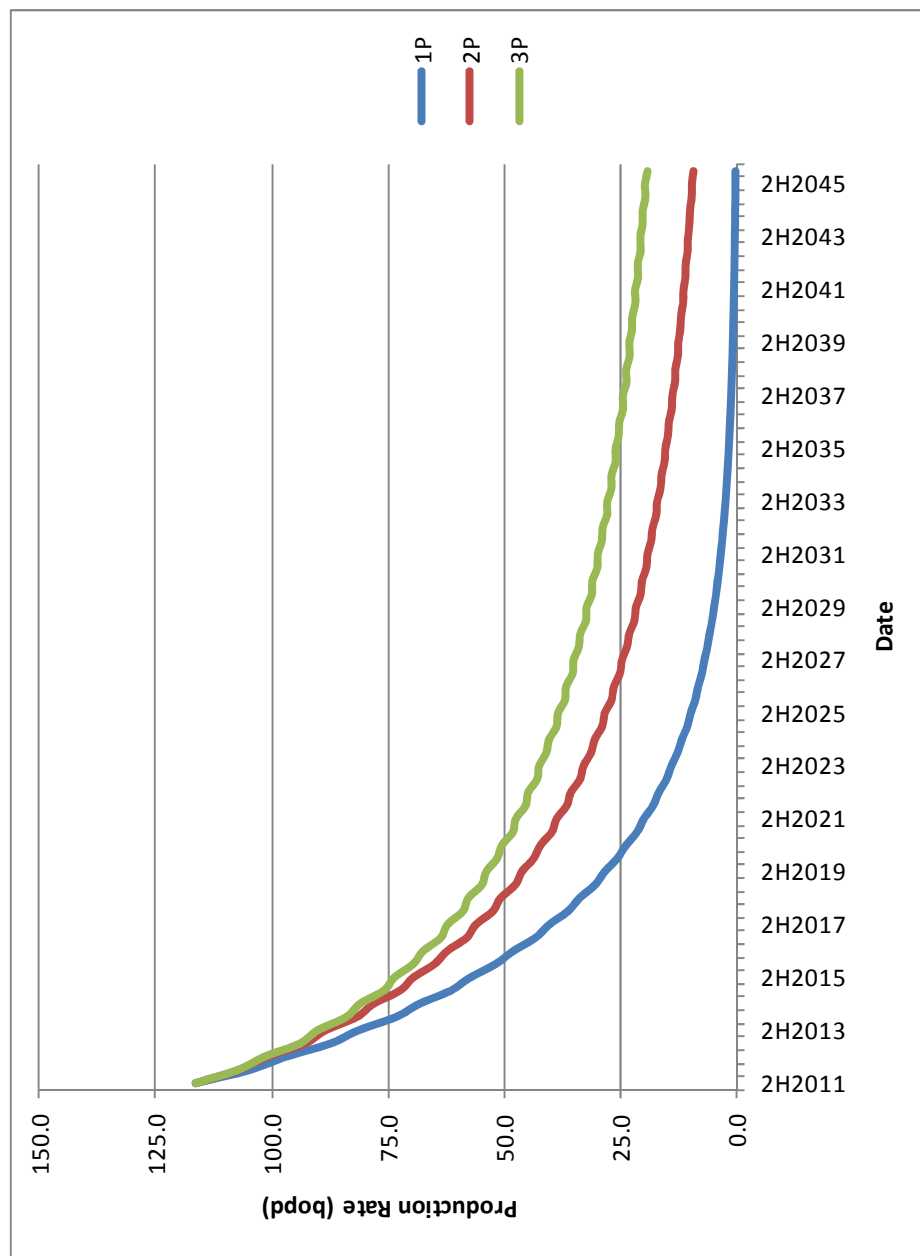
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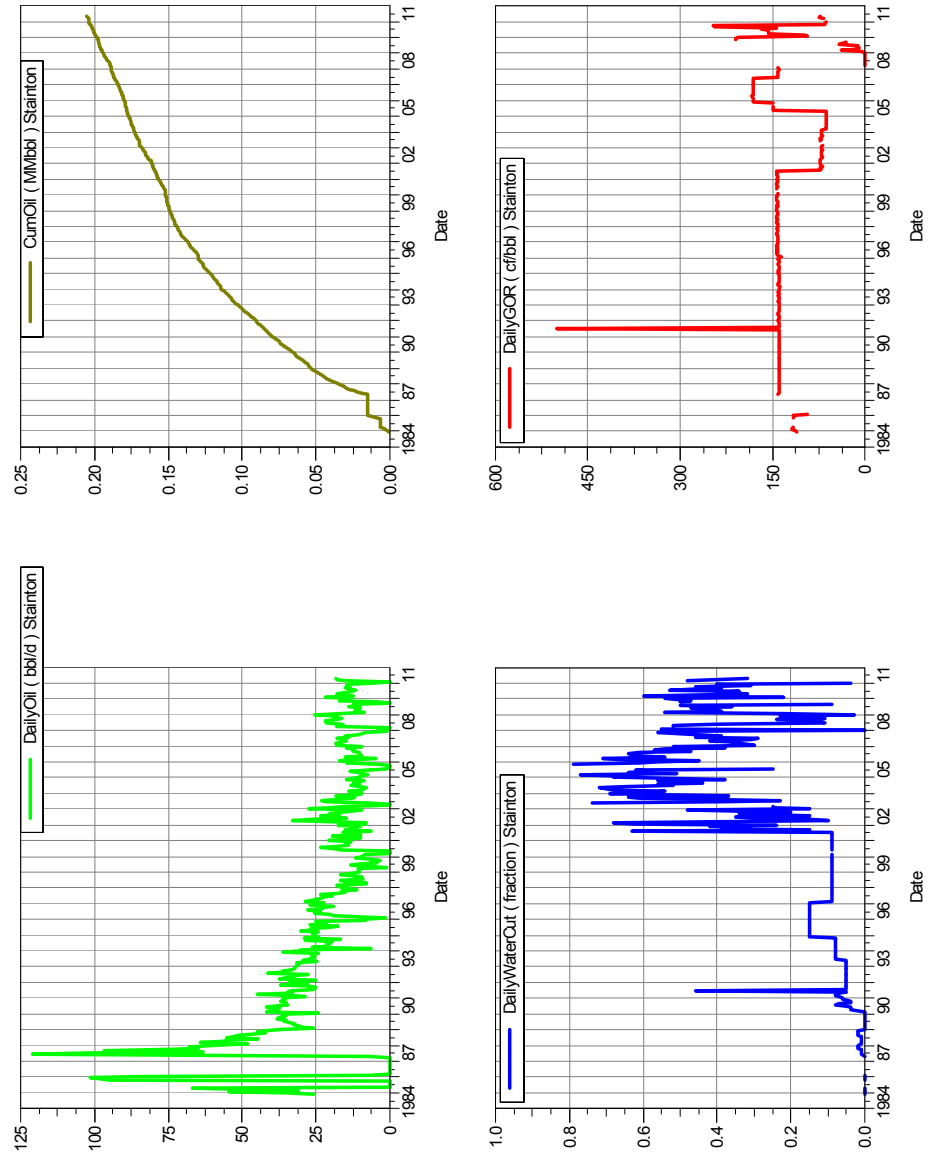
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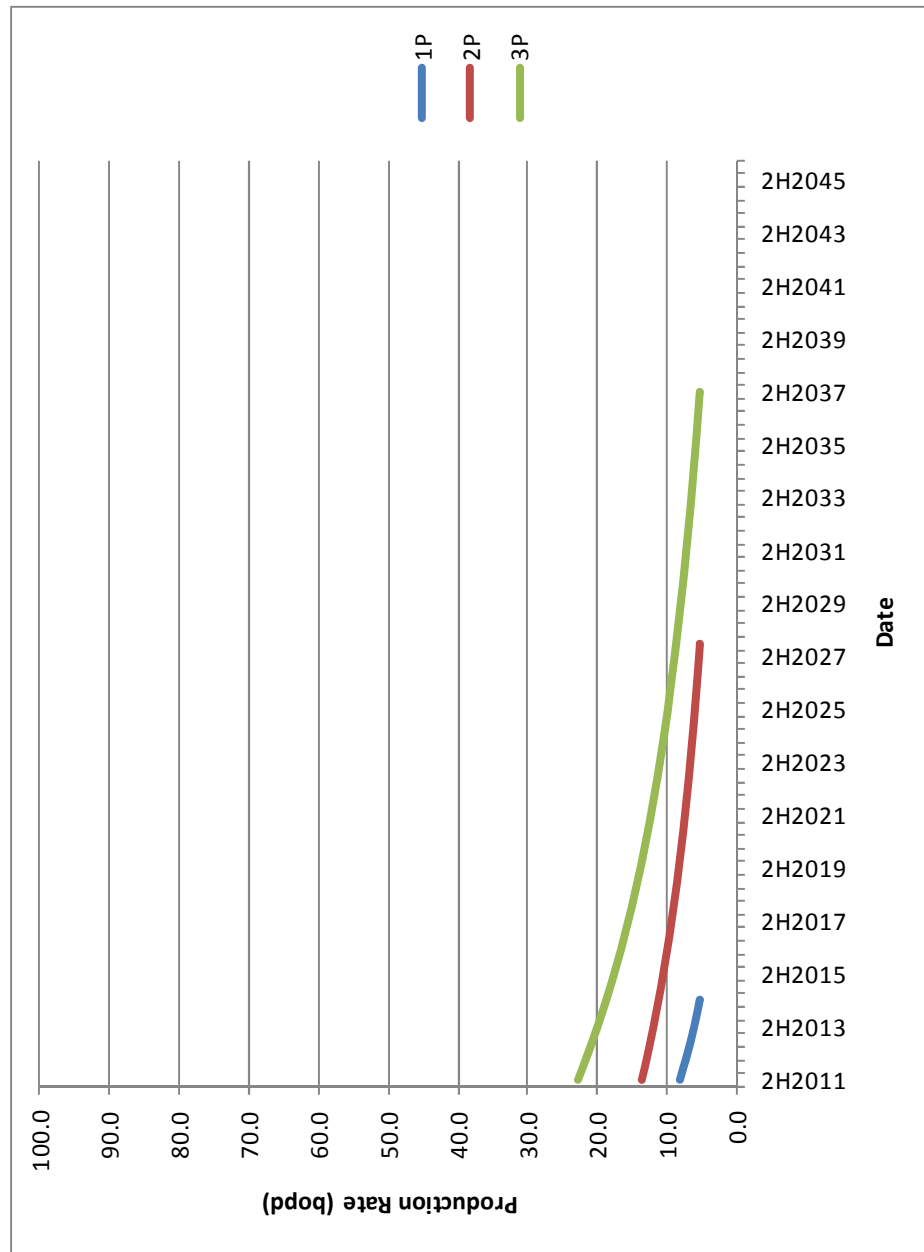
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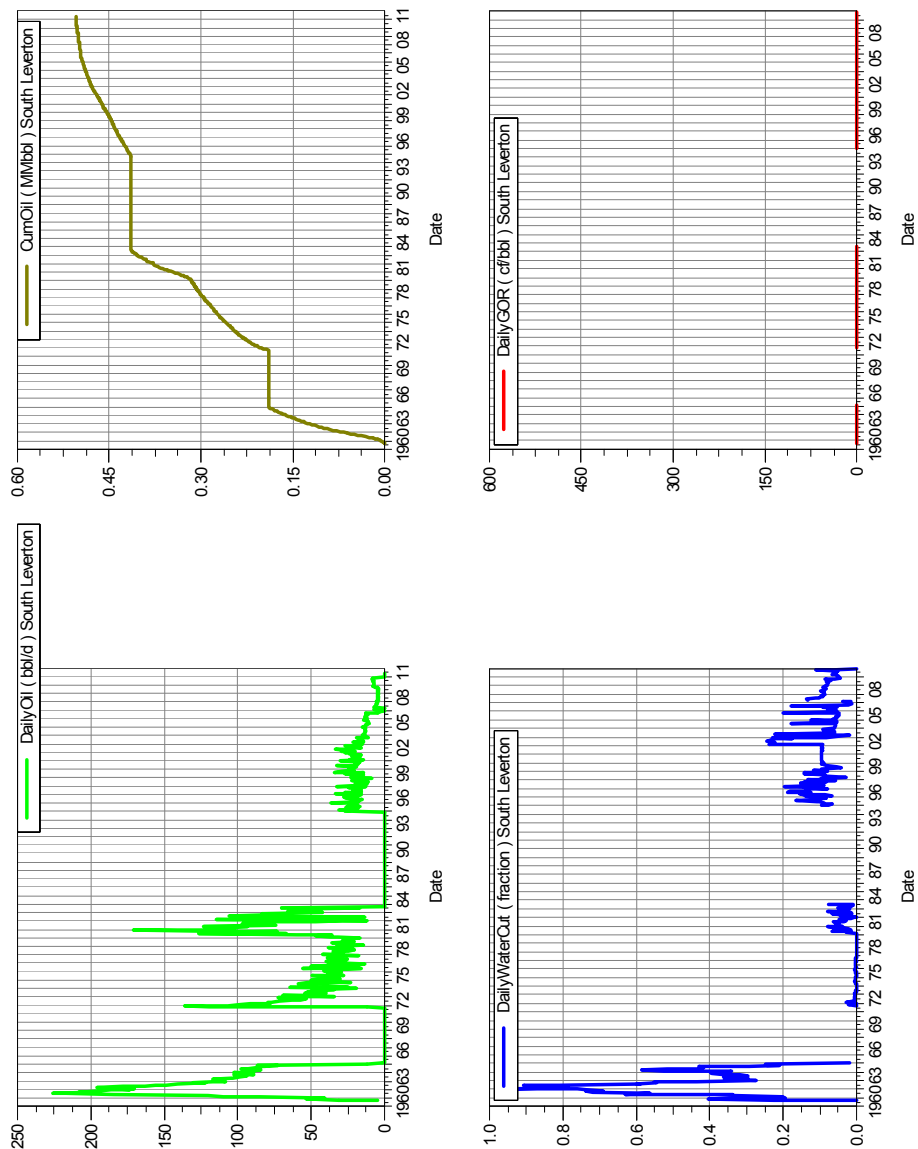
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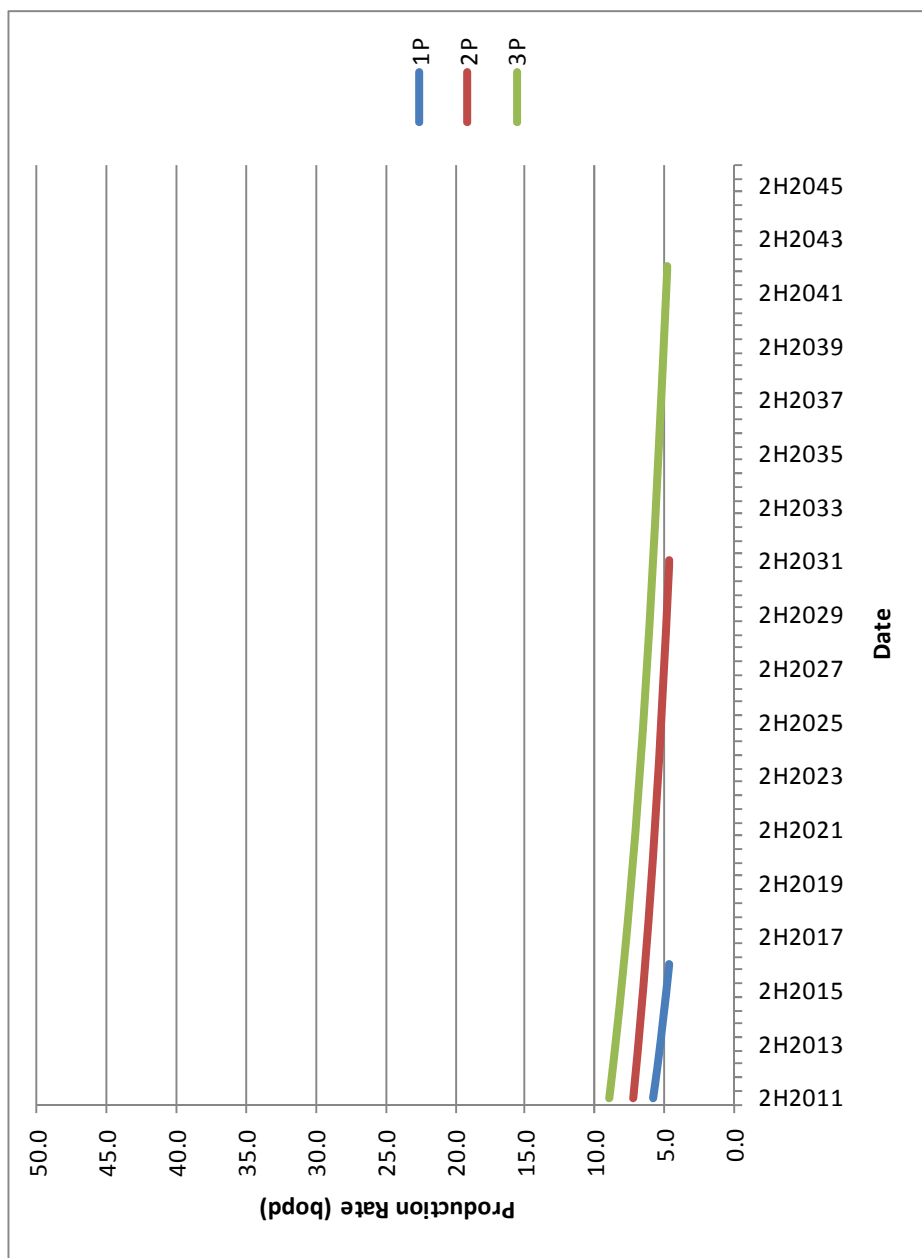
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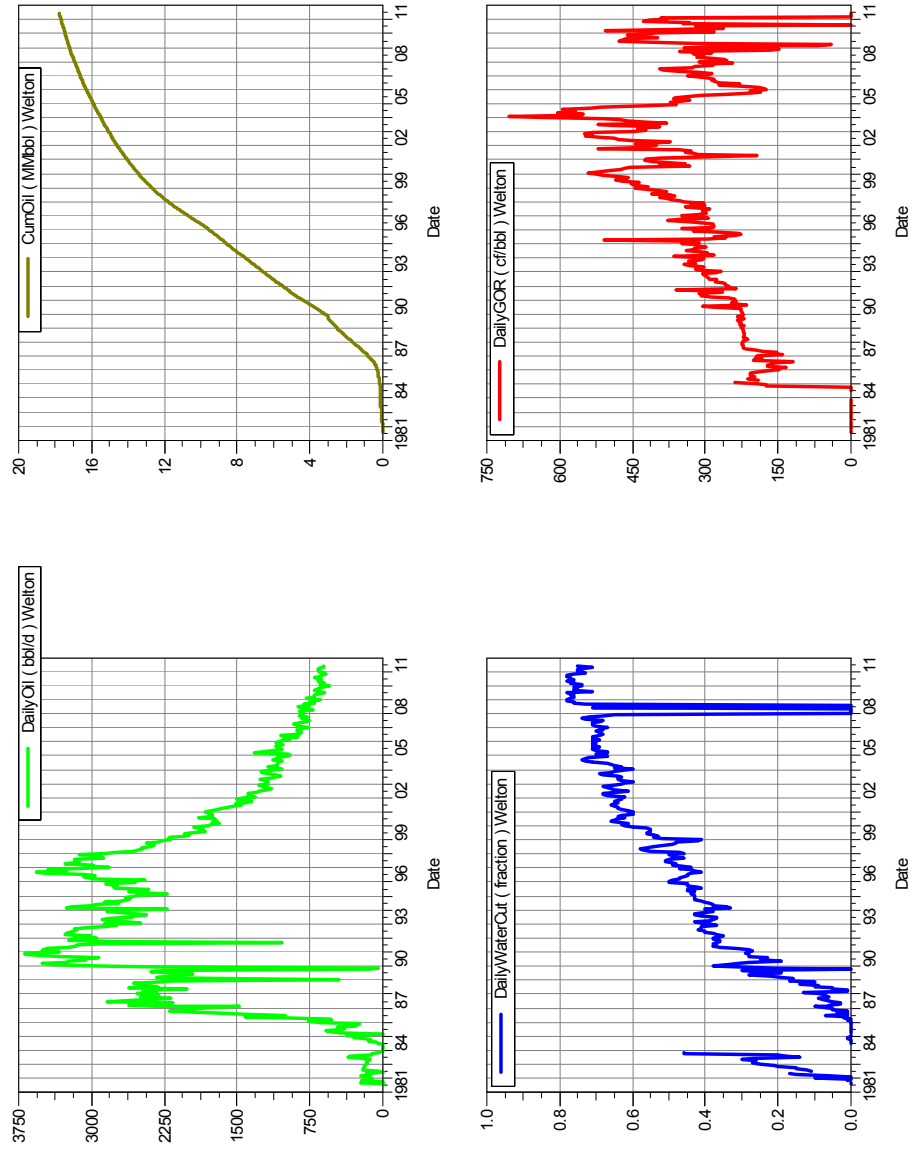
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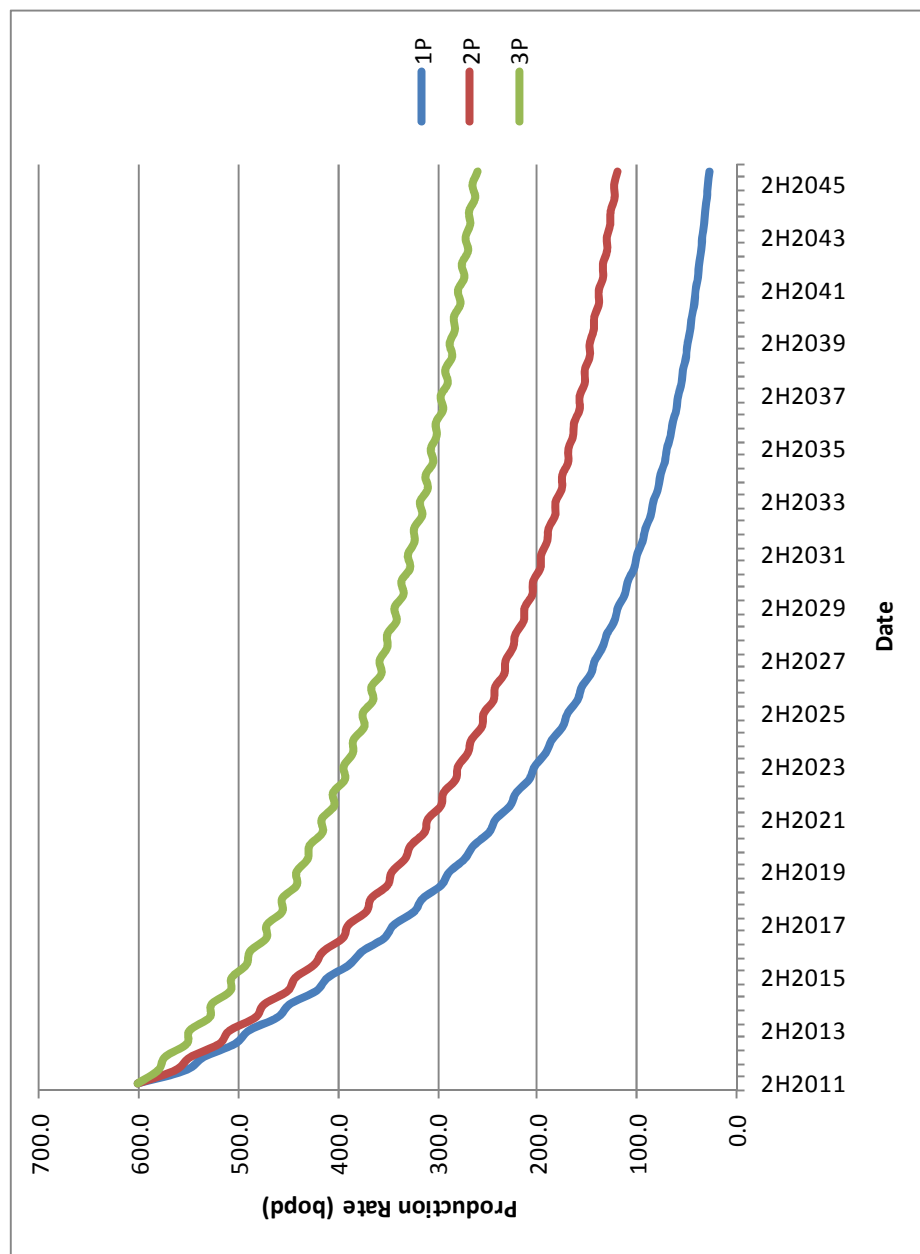
Figure 2.34



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Figure 2.35





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Figure 2.36

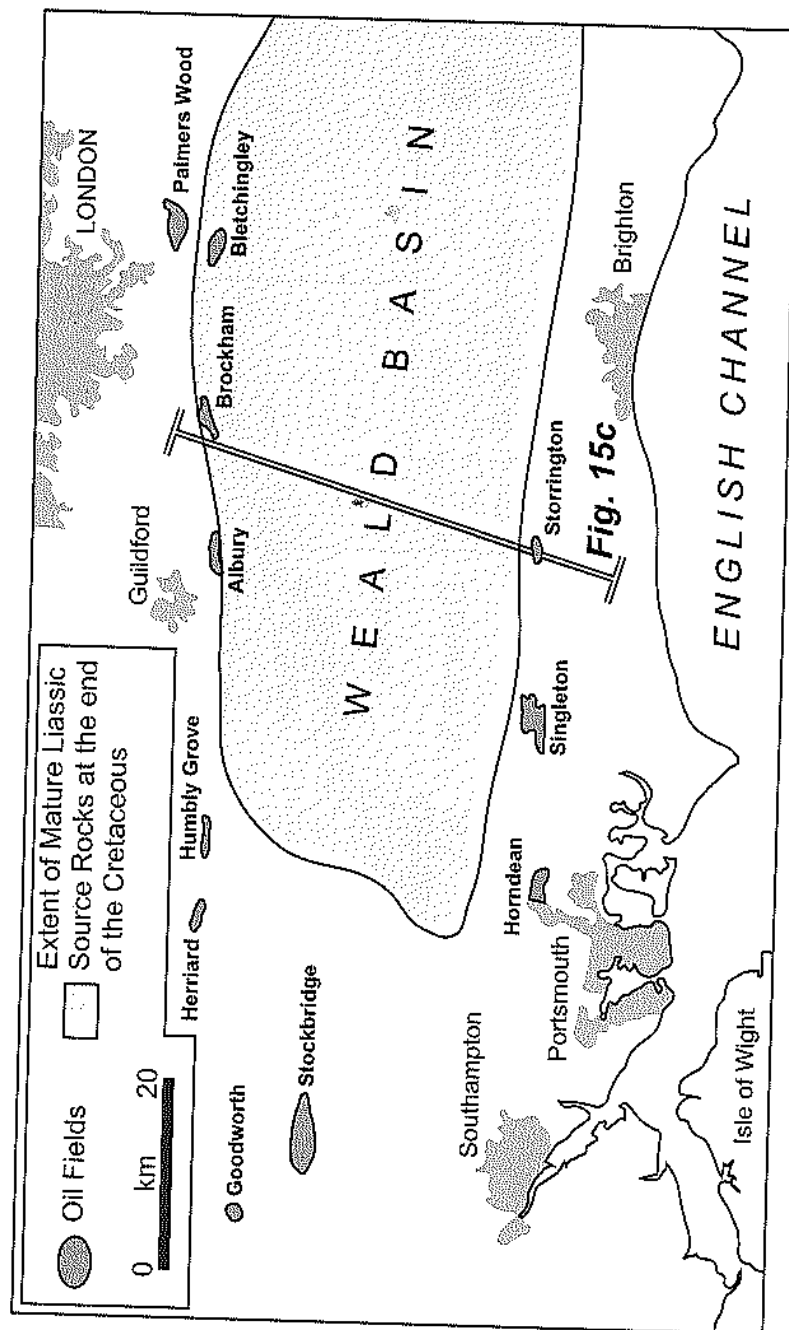
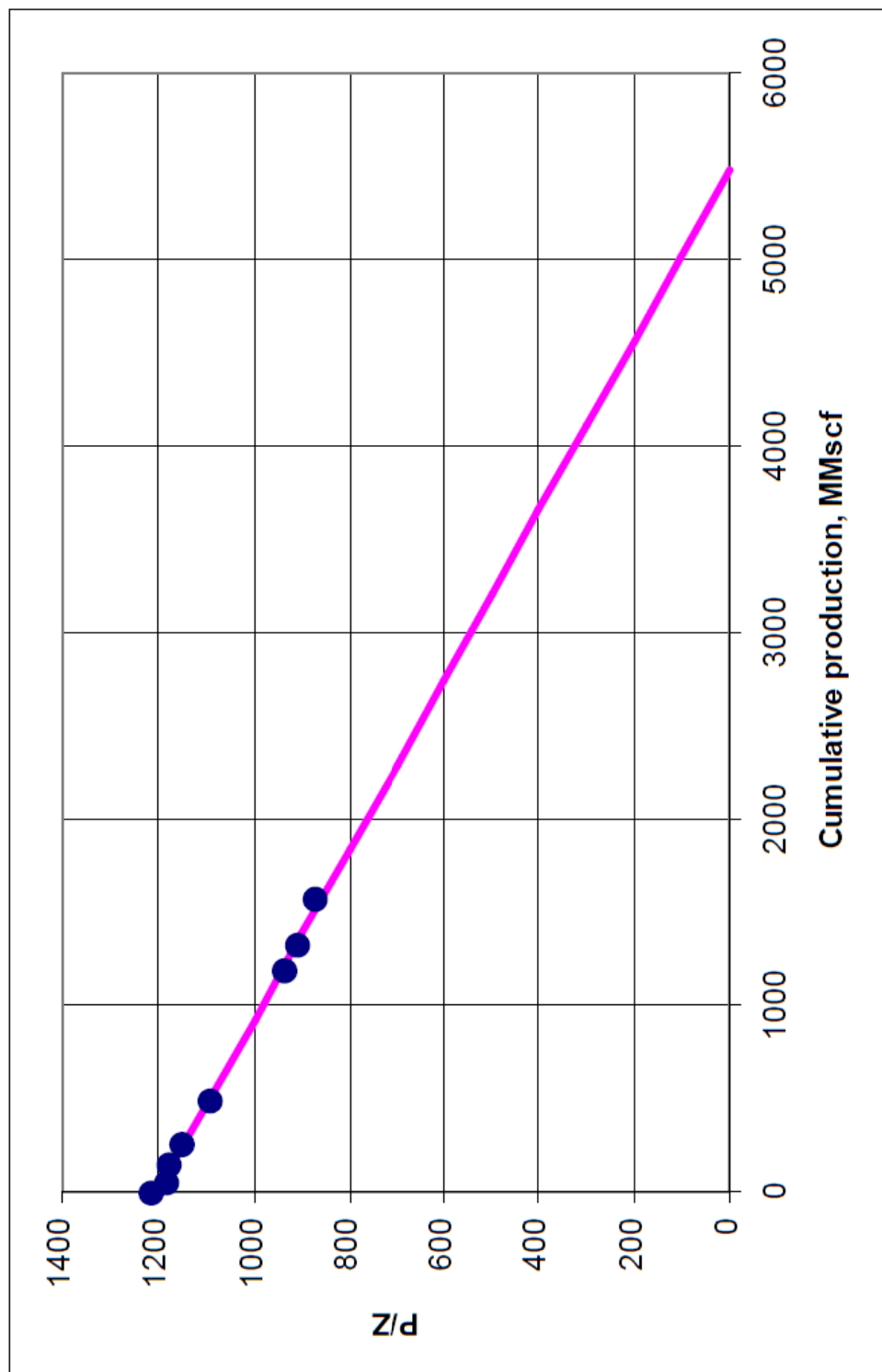


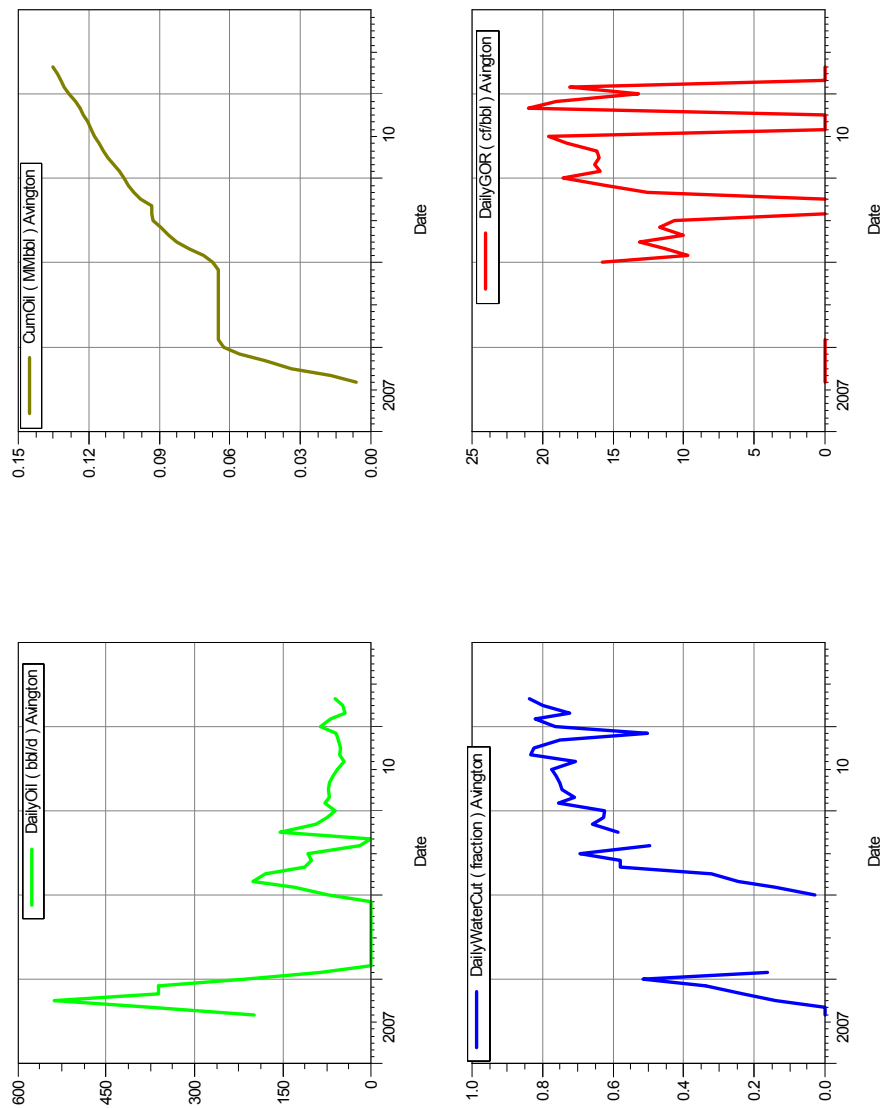
Figure 2.37

Source: Geological Society Memoir 20, Figure 34 on Page 41



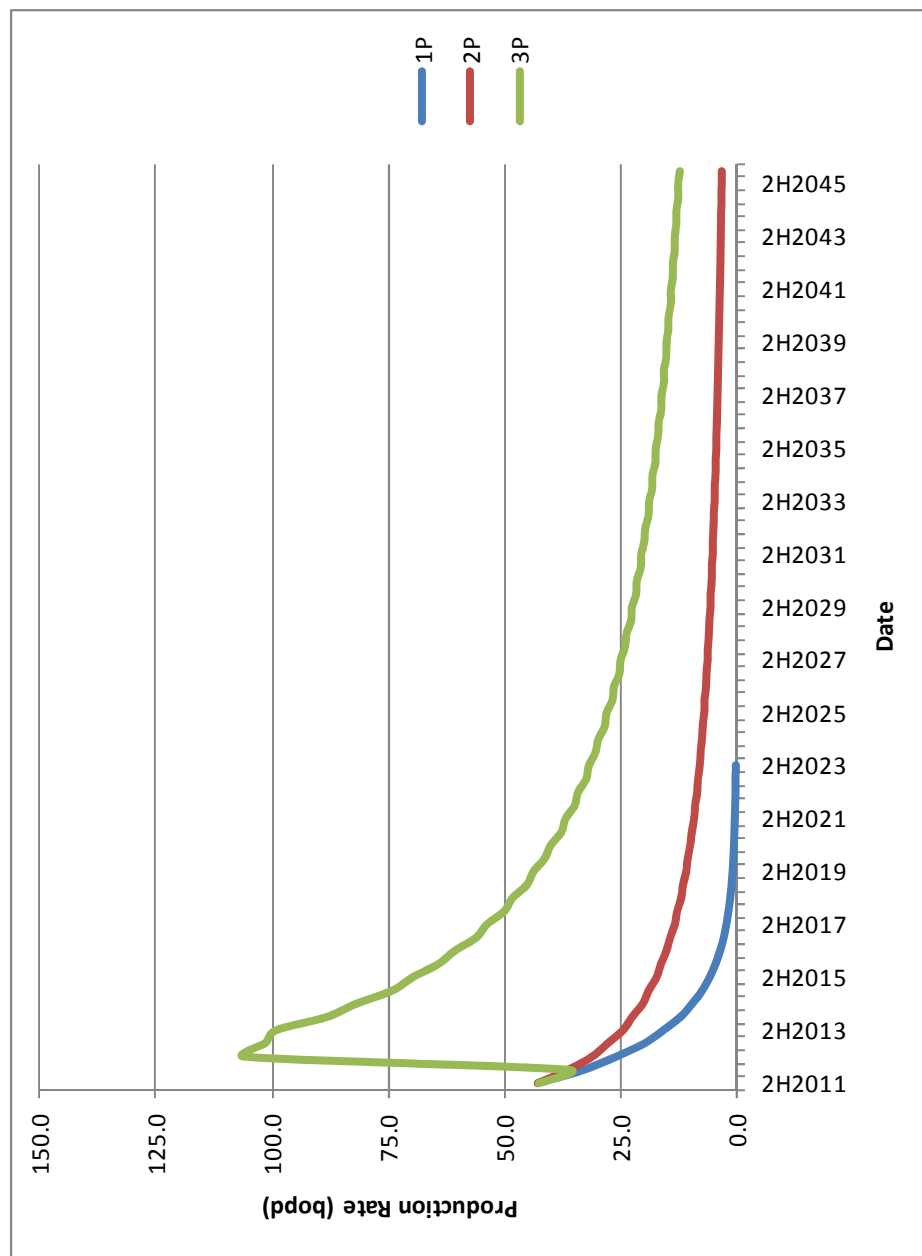
Source: Figure 64, RPS Reserves Report 2008

Figure 2.38



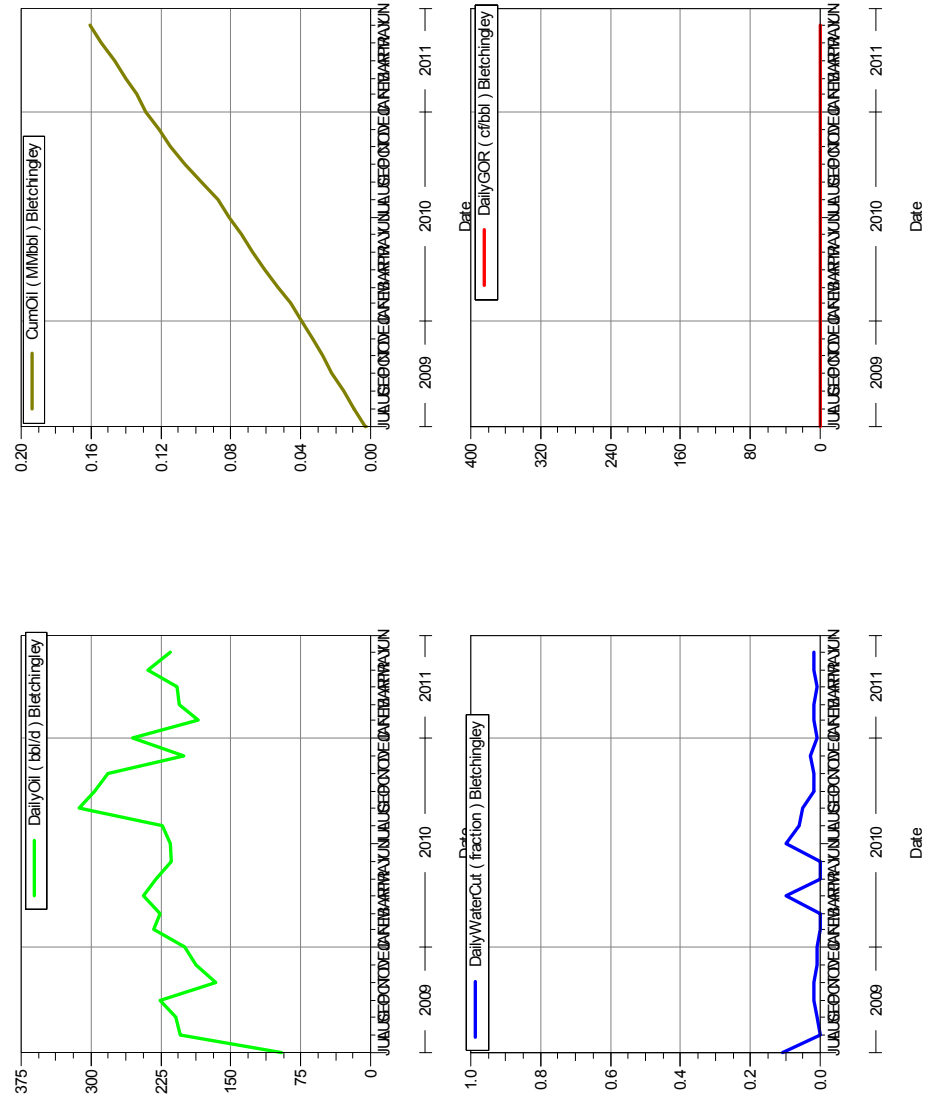
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Figure 2.39



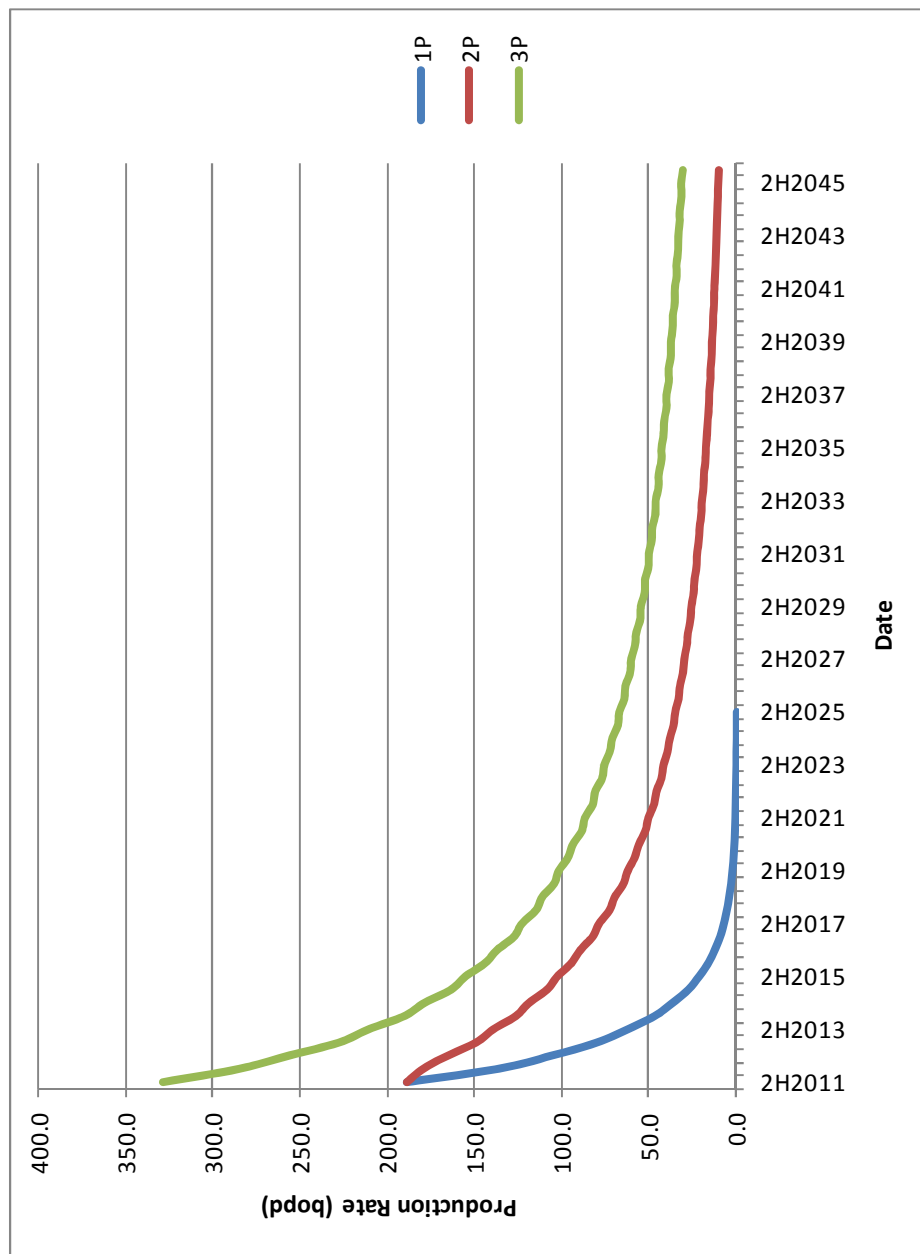
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Figure 2.40



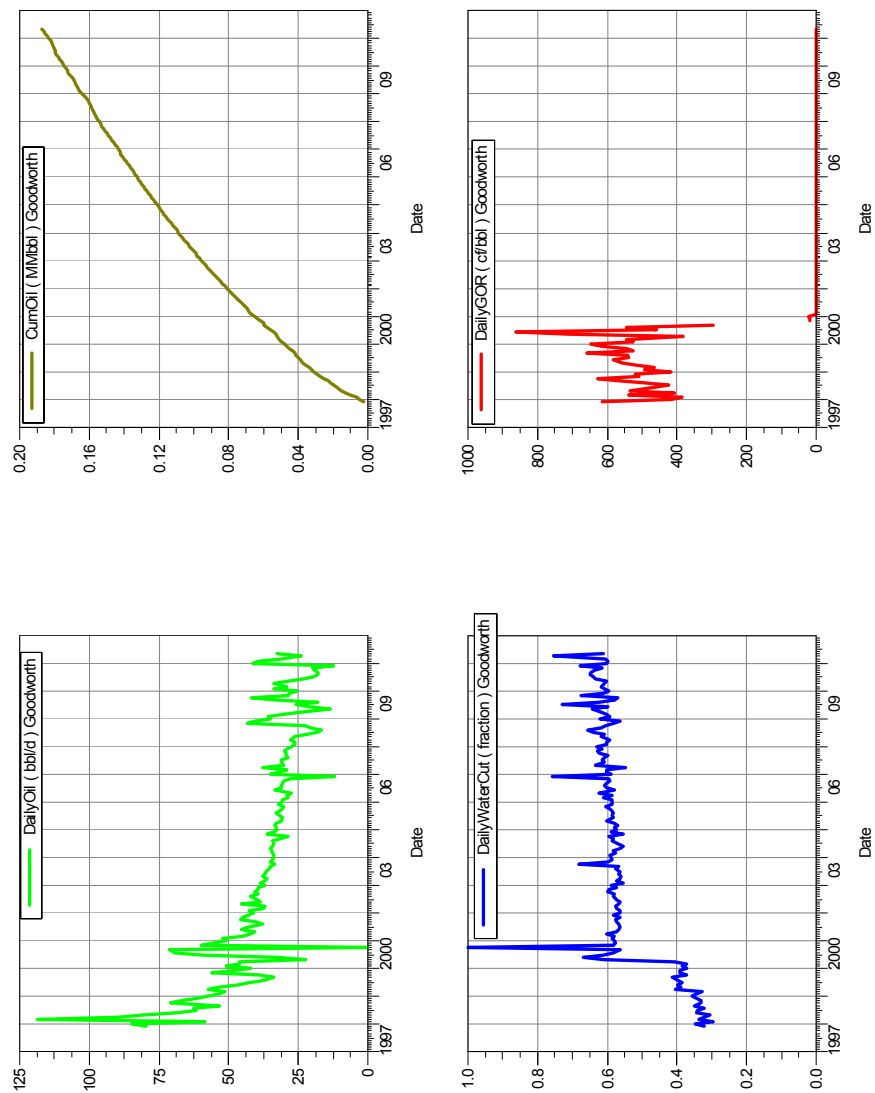
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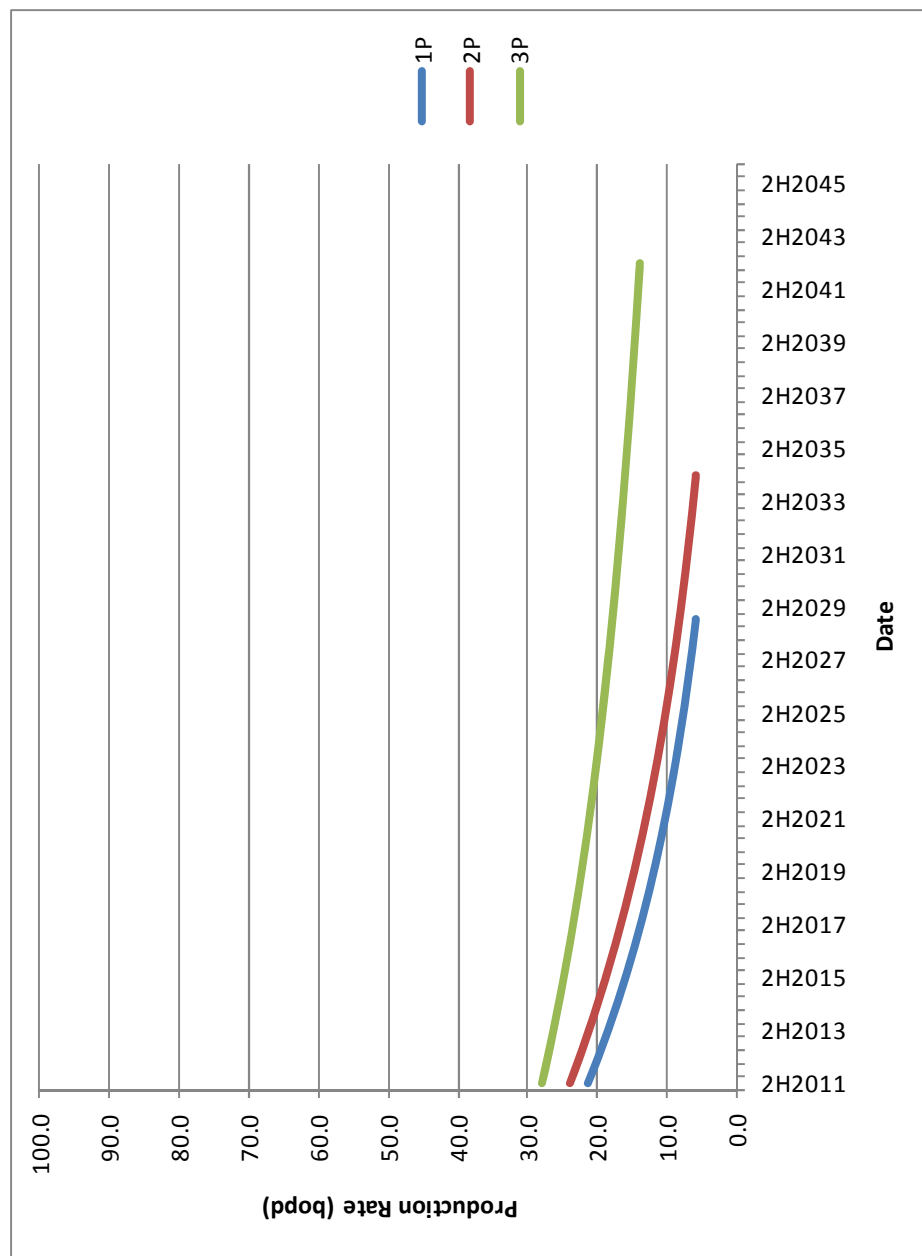
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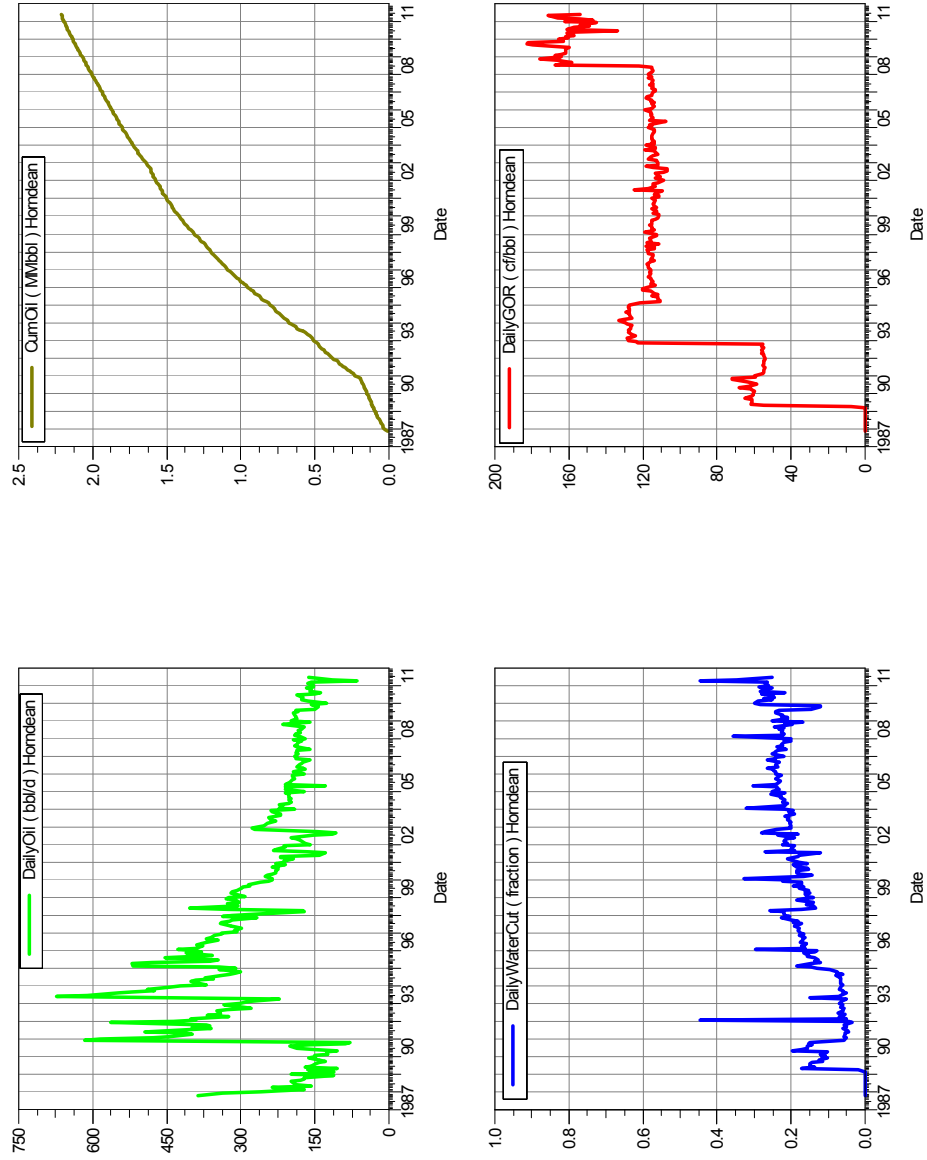
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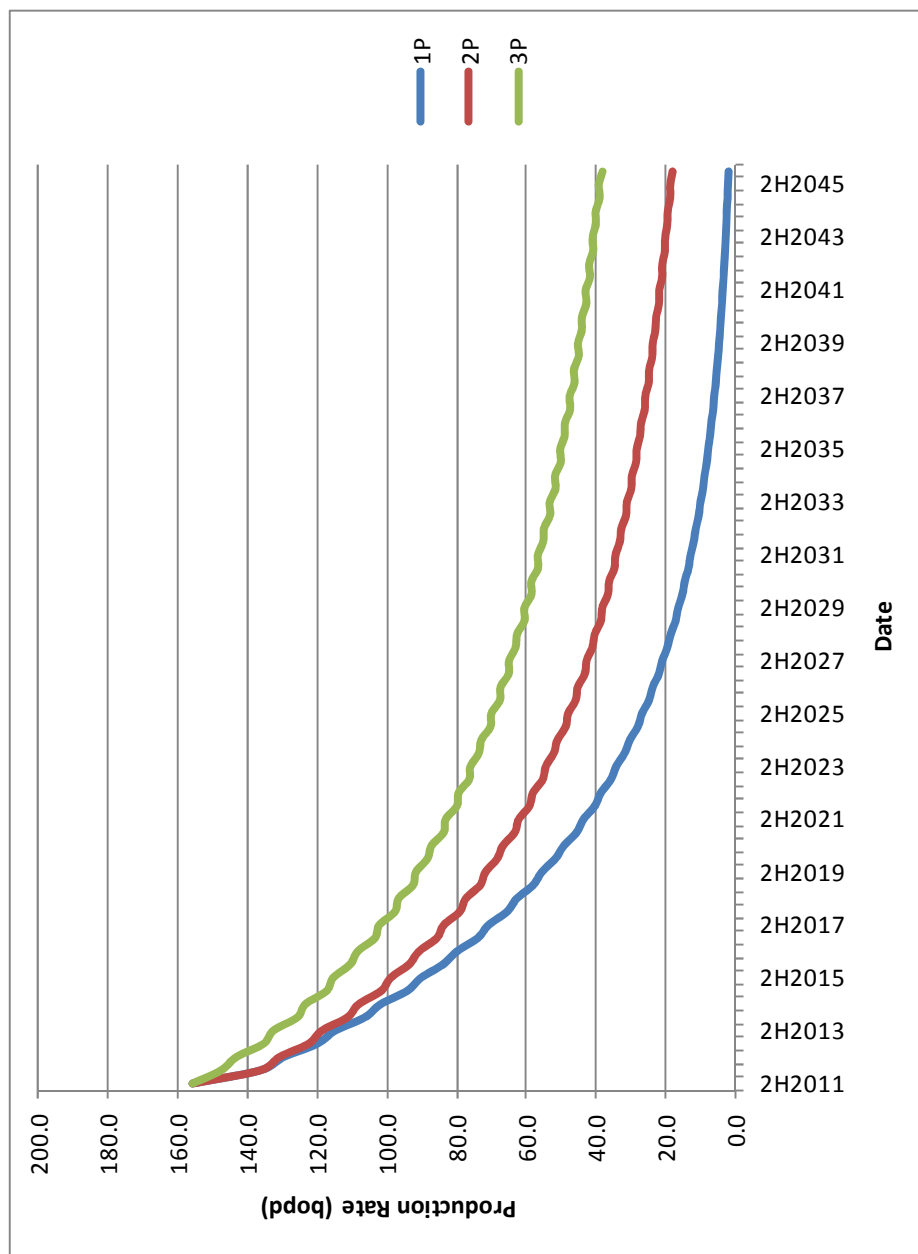
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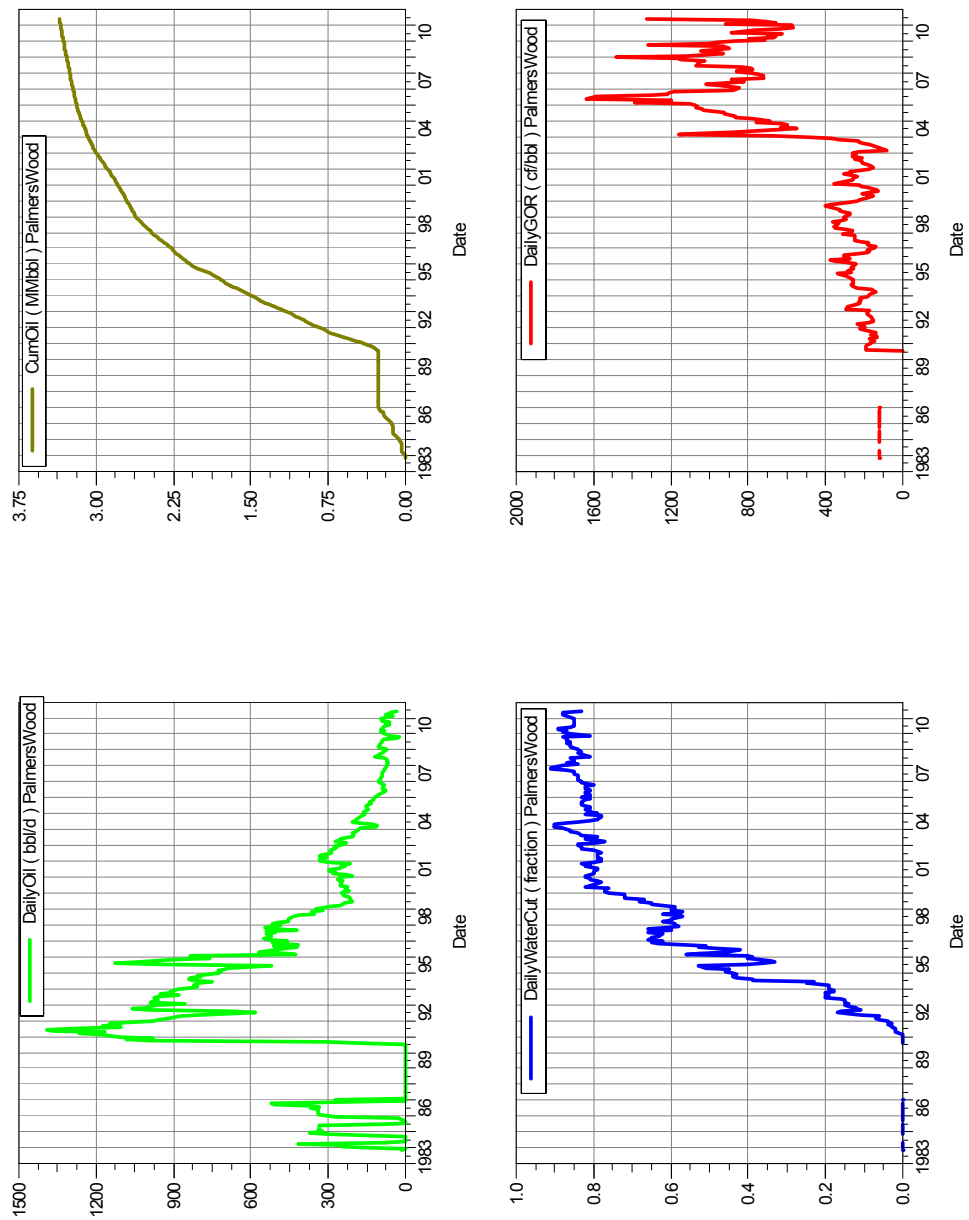
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Figure 2.45



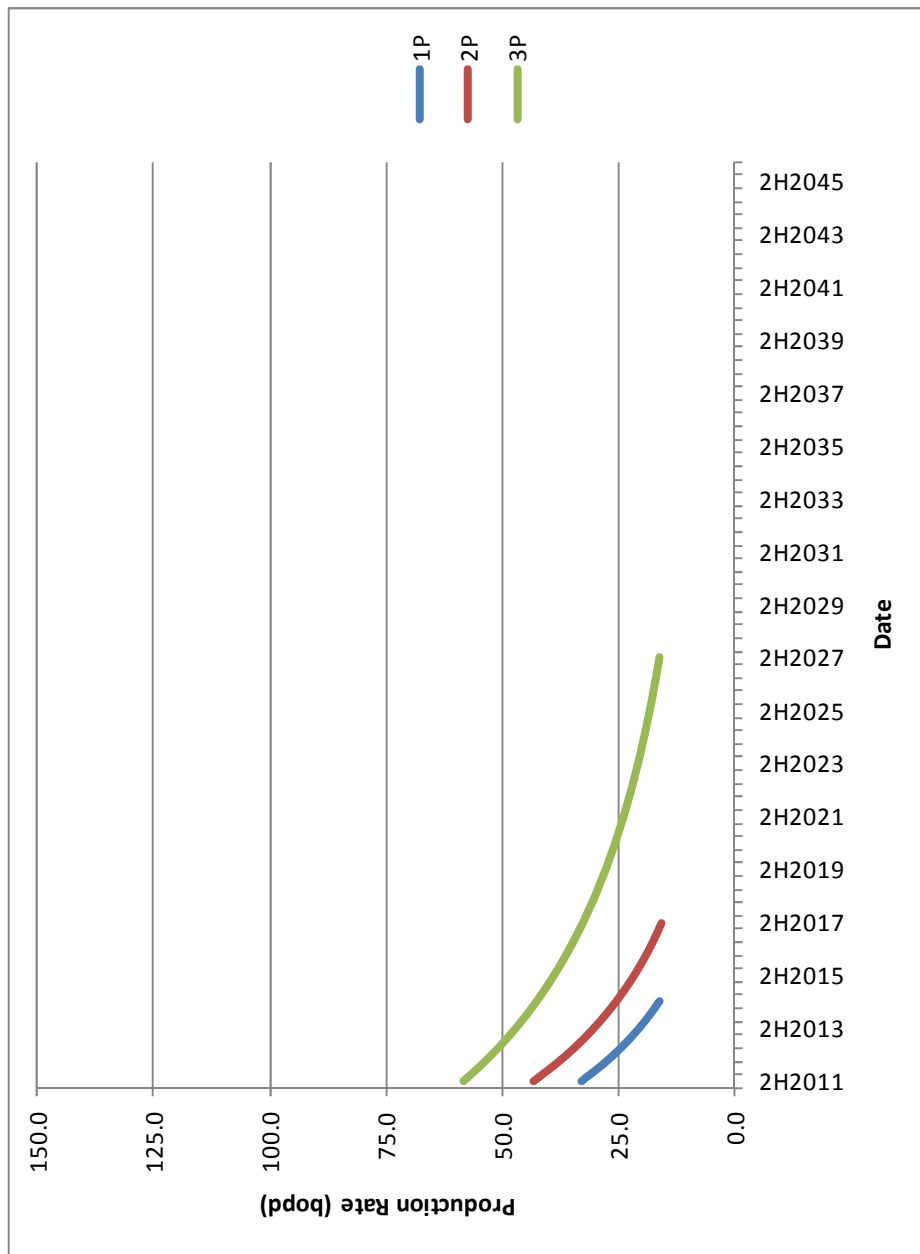
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Figure 2.46



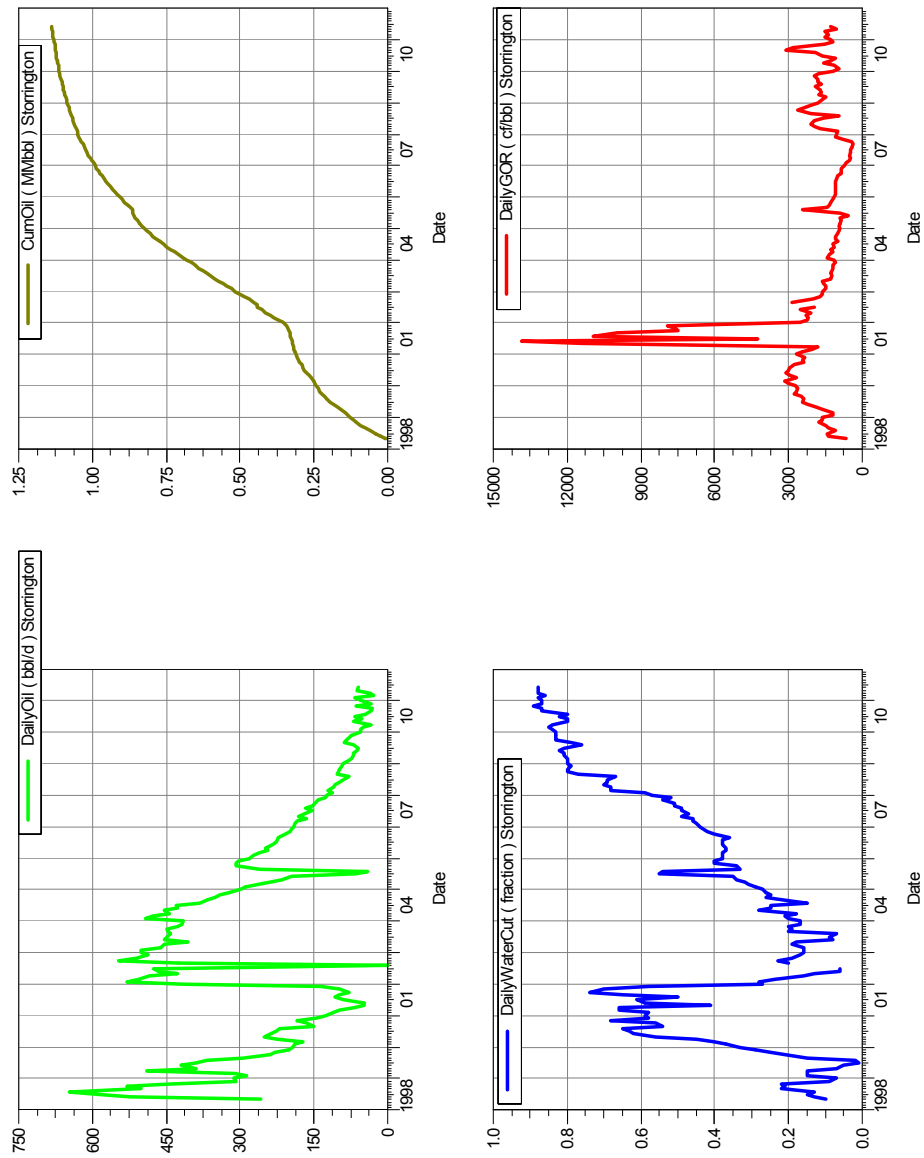
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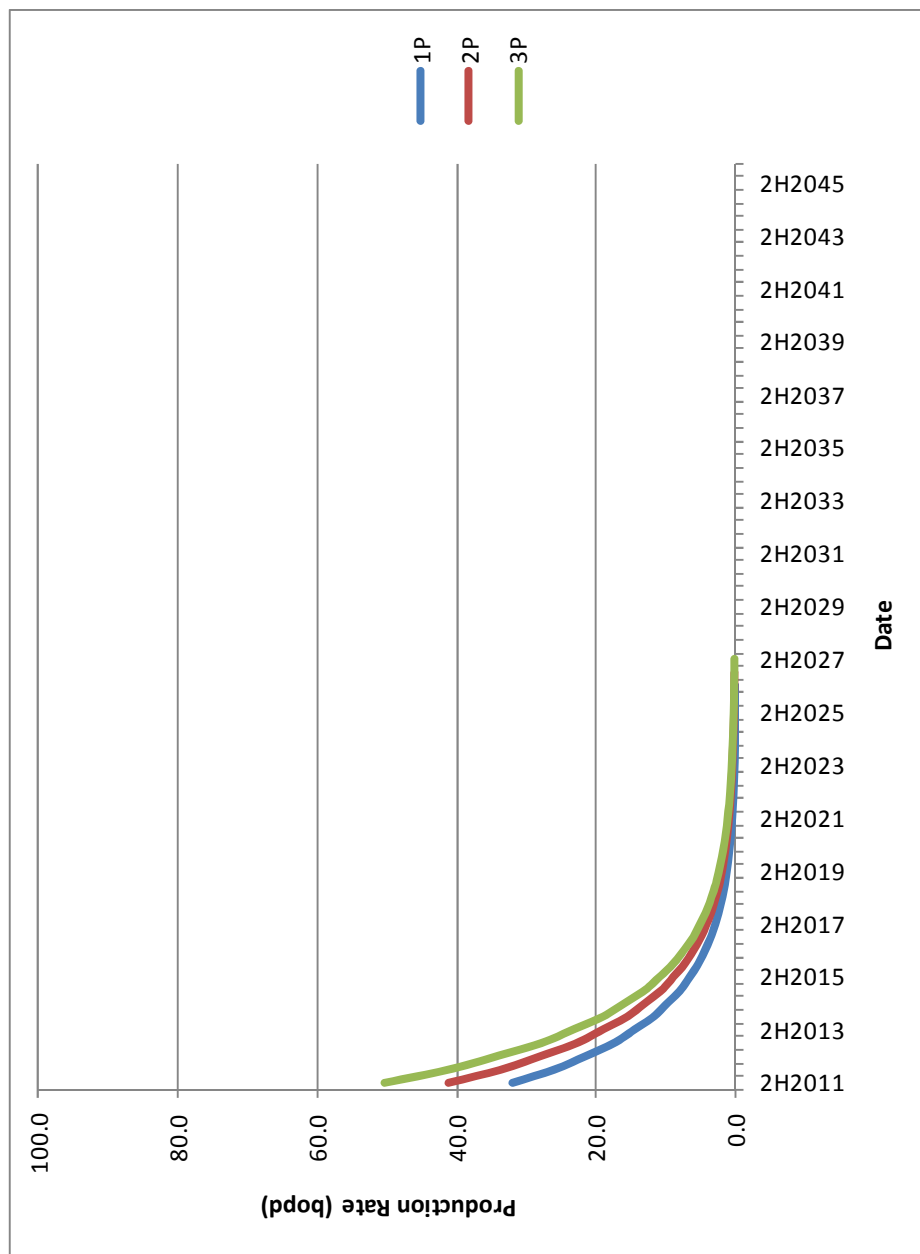
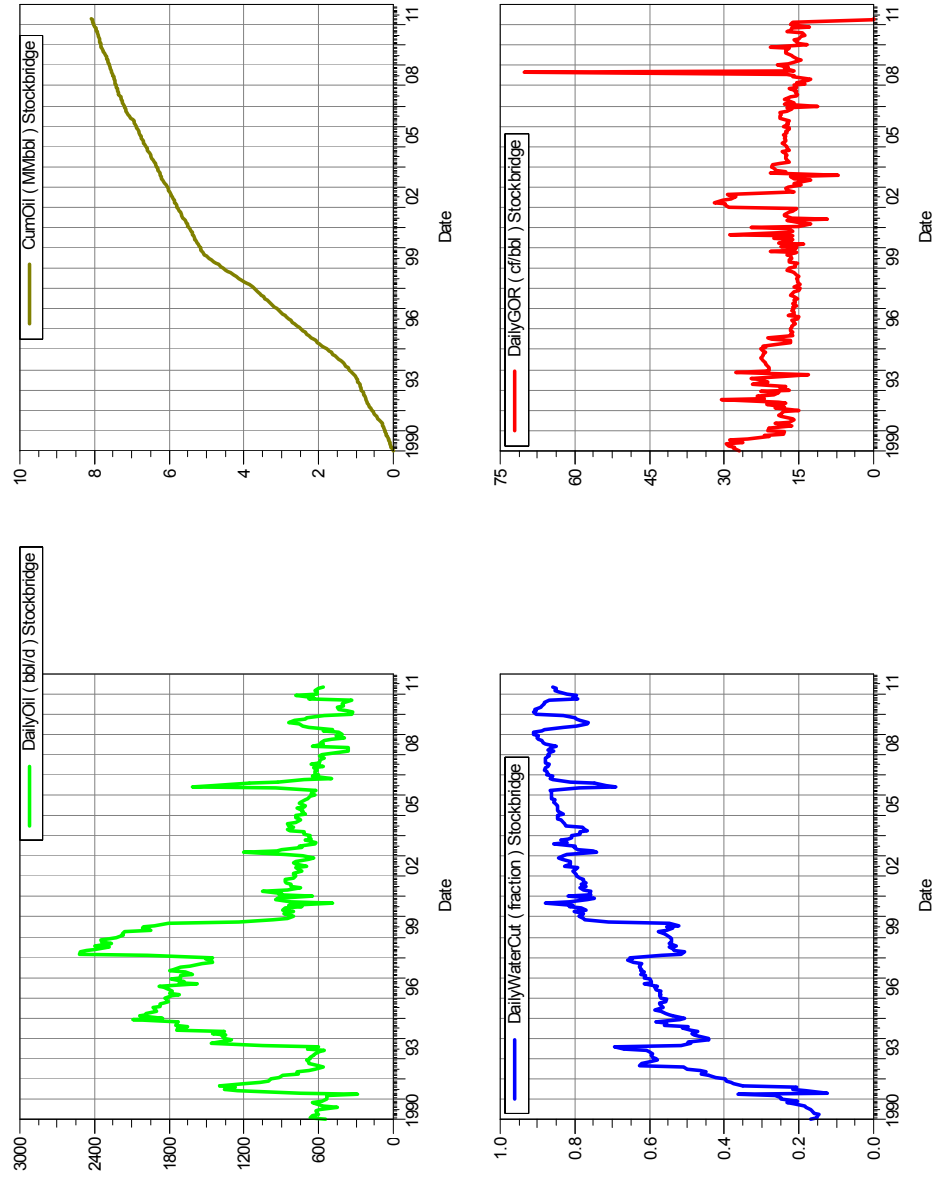


Figure 2.50

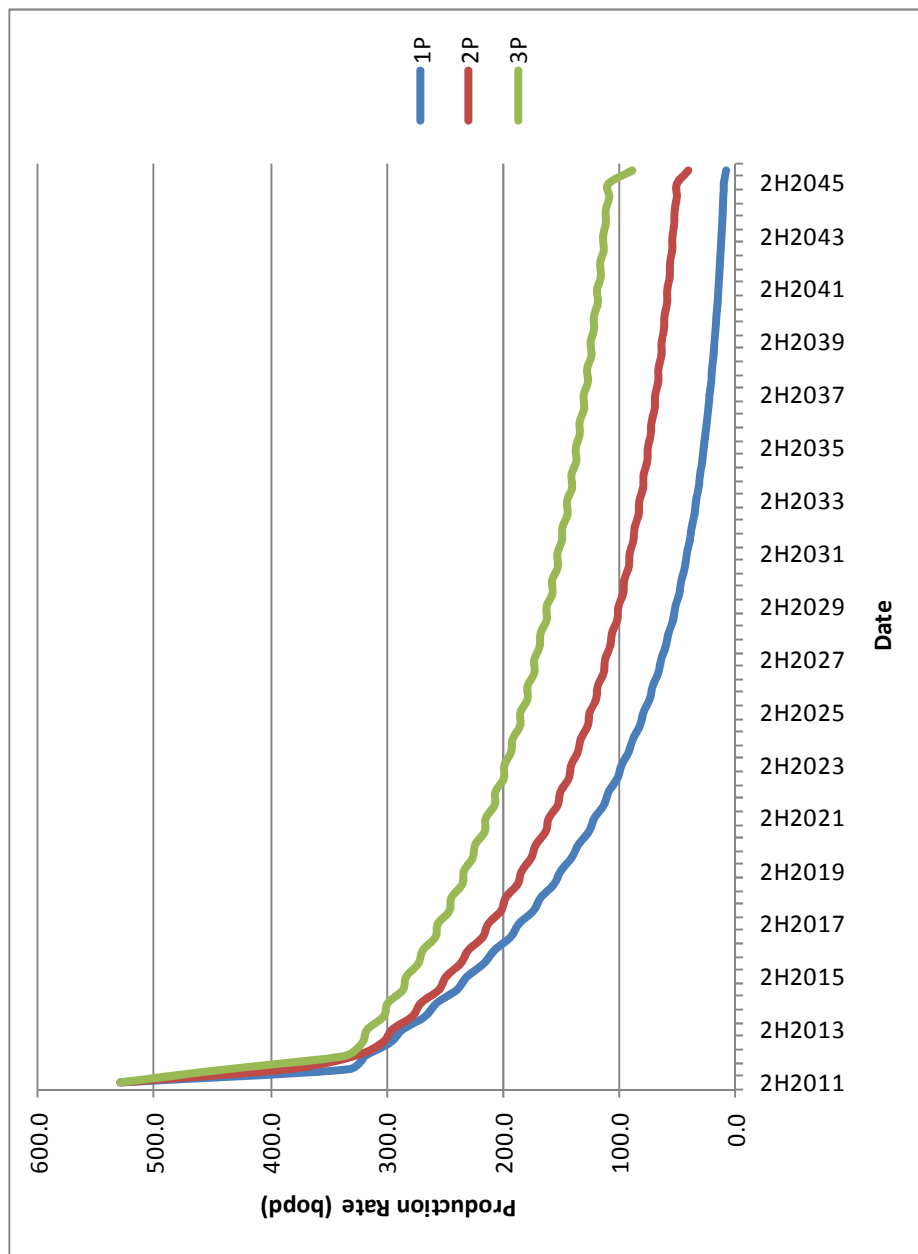
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Figure 2.51





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Figure 2.52



Gas content with depth (mss) with low, mid and high estimates using the Longmuir equation

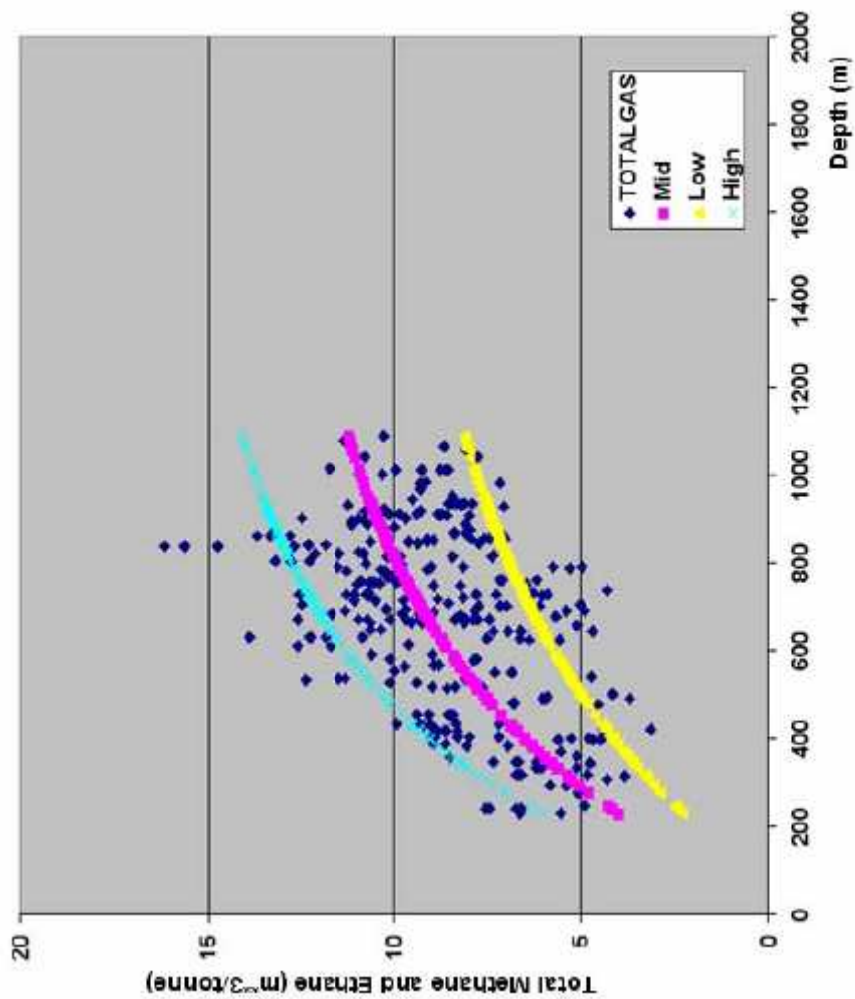
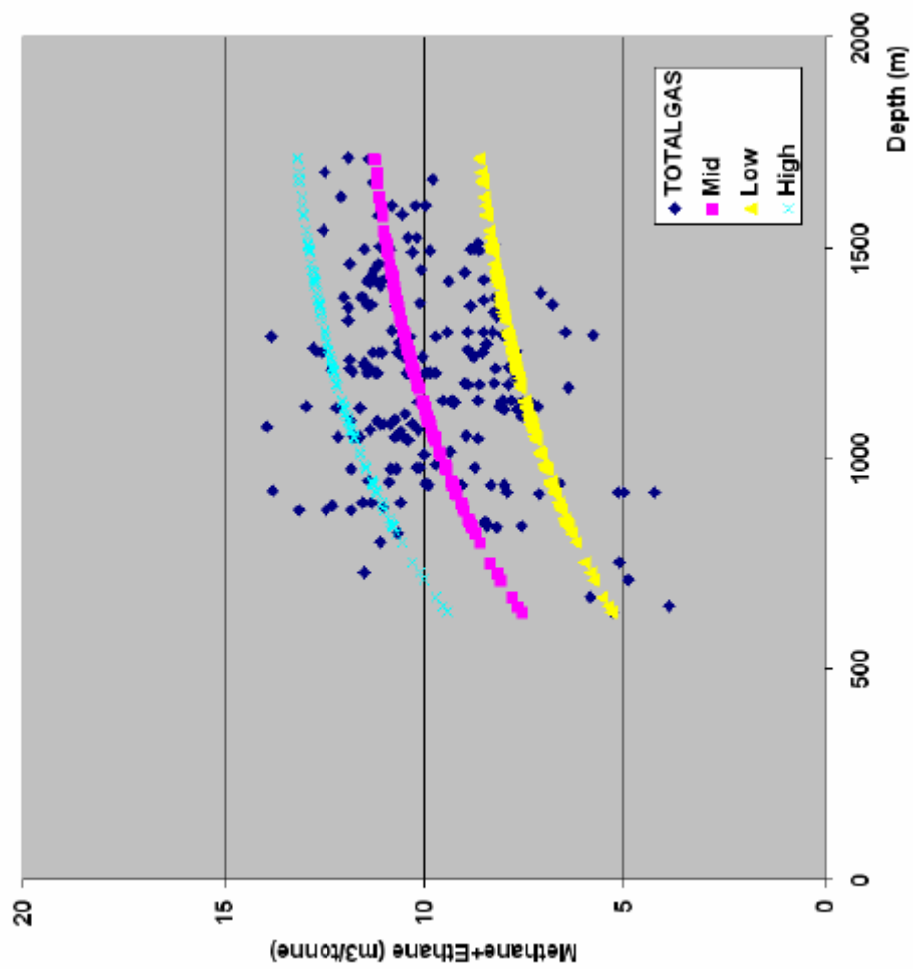


Figure 4.1

Source: Equipoise CPR February 2010



Gas content with depth (mss) with low, mid and high estimates using the Longmuir equation



Source: Equipoise CPR February 2010

Figure 4.2



Gas content with depth (mss) with low, mid and high estimates using the Longmuir equation

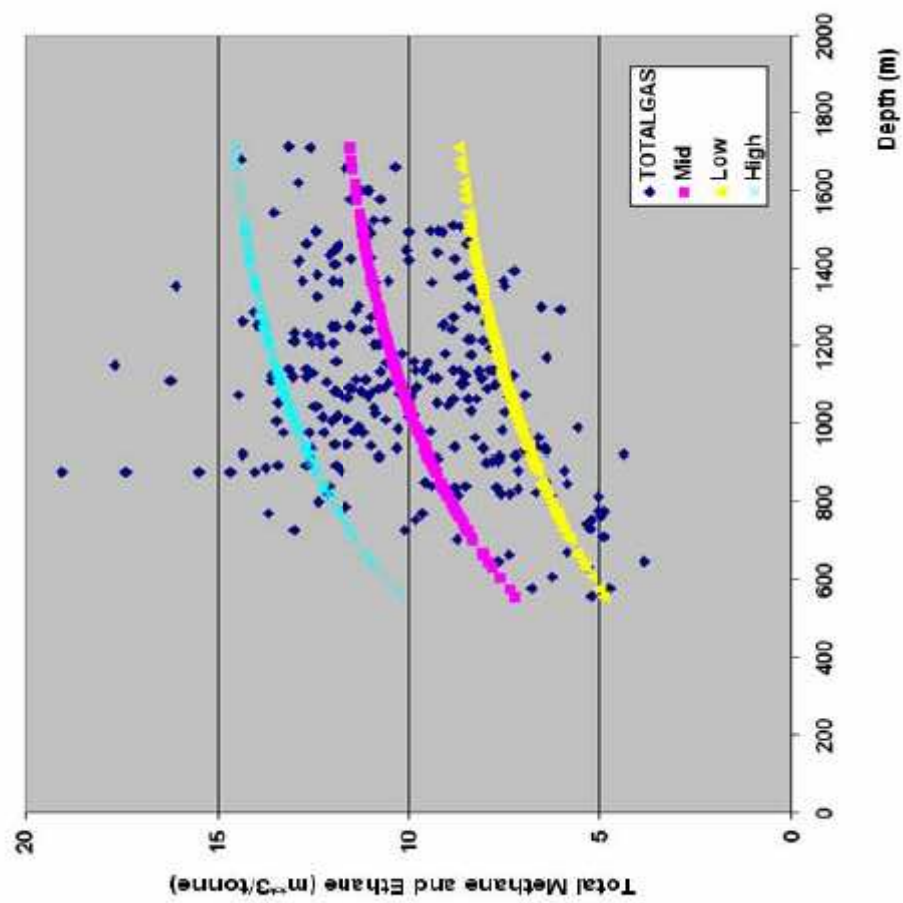


Figure 4.3

Source: Equipoise CPR February 2010

## **PART 5**

### **HISTORIAL FINANCIAL INFORMATION ON IGAS**

The annual report and accounts of IGas Energy plc for the year ended 31 December 2010 together with the independent auditor's reports to the members of IGas Energy plc thereon is indicated below:

### **Independent auditor's report to the members of IGas Energy plc**

We have audited the group financial statements of IGas Energy plc for the year ended 31 December 2010 which comprise the Consolidated Income Statement, the Consolidated Statement of Comprehensive Income, the Consolidated Balance Sheet, the Consolidated Statement of Changes in Equity, the Consolidated Cash Flow Statement and the related notes 1 to 20. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### **Respective responsibilities of directors and auditors**

As explained more fully in the Directors' Statement of Responsibilities set out on page 22, the directors are responsible for the preparation of the group financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the group financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### **Scope of the audit of the financial statements**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the group's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### **Opinion on financial statements**

In our opinion the group financial statements:

- give a true and fair view of the state of the group's affairs as at 31 December 2010 and of its loss for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

### **Opinion on other matter prescribed by the Companies Act 2006**

In our opinion the information given in the Directors' Report for the financial year for which the financial statements are prepared is consistent with the group financial statements.

### **Matters on which we are required to report by exception**

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

### **Other matter**

We have reported separately on the parent company financial statements of IGas Energy plc for the year ended 31 December 2010.

Gary Donald (Senior Statutory Auditor)  
for and on behalf of Ernst & Young LLP, Statutory Auditor  
London

20 May 2011

**Consolidated income statement**  
**For the year ended 31 December 2010**

	Notes	2010 £000	2009 £000
Revenue	2	656	828
Cost of sales		(589)	(671)
Gross profit		67	157
Administrative expenses		(1,780)	(672)
Operating loss		(1,713)	(515)
Finance income	6	170	11
Loss on ordinary activities before tax		(1,543)	(504)
Tax on loss on ordinary activities	7	—	—
Loss from continuing operations attributable to equity shareholders of the Group		(1,543)	(504)
Basic and diluted (loss) per share (£/share)	8	(0.0169)	(0.0076)

**Consolidated statement of comprehensive income**  
**For the year ended 31 December 2010**

	<u>2010</u> <u>£000</u>	<u>2009</u> <u>£000</u>
<b>Loss for the year</b>	<b>(1,543)</b>	<b>(504)</b>
Other comprehensive income for the year	<u>—</u>	<u>—</u>
<b>Total comprehensive loss for the year</b>	<b><u>(1,543)</u></b>	<b><u>(504)</u></b>



**Consolidated balance sheet****As at 31 December 2010**

	Notes	2010 £000	2009 £000
<b>Non-current assets</b>			
Intangible exploration and evaluation assets	9	<b>4,644</b>	1,334
Property, plant and equipment	10	<b>205</b>	—
		<b>4,849</b>	1,334
<b>Current assets</b>			
Trade and other receivables	11	<b>589</b>	258
Cash and cash equivalents	12	<b>12,087</b>	17,501
		<b>12,676</b>	17,759
<b>Current liabilities</b>			
Trade and other payables	13	<b>(797)</b>	(931)
<b>Net current assets</b>		<b>11,879</b>	16,828
<b>Total assets less current liabilities</b>		<b>16,728</b>	18,162
<b>Net assets</b>		<b>16,728</b>	18,162
<b>Capital and reserves</b>			
Called up share capital	16	<b>19,665</b>	18,617
Share premium account	18	<b>2,500</b>	2,203
Share plan/warrant reserve	17	<b>63</b>	131
Treasury shares	18	<b>(1,299)</b>	—
Retained earnings/(accumulated deficit)		<b>(4,201)</b>	(2,789)
<b>Shareholders' funds</b>		<b>16,728</b>	18,162

These financial statements were approved and authorised for issue by the Board on 20 May 2011 and are signed on its behalf by:

Francis Gugen	Andrew Austin
Chairman	Chief Executive Officer

**Consolidated statement of changes in equity**  
**For the year ended 31 December 2010**

	Called up share capital (Note 16) £000	Share premium account £000	Share plan/warrant reserve £000	Treasury shares £000	Retained earnings/ (accumulated deficit) £000	Total £000
<b>Balance at 1 January 2009</b>	<b>4,275</b>	<b>420</b>	<b>167</b>	<b>—</b>	<b>(2,285)</b>	<b>2,577</b>
<b>Changes in equity for 2009</b>						
Total comprehensive loss for the year	—	—	—	—	(504)	(504)
Transfer to Share premium account	—	36	(36)	—	—	—
Issue of shares during year	14,342	2,868	—	—	—	17,210
Share issue costs	—	(1,121)	—	—	—	(1,121)
<b>Balance at 31 December 2009</b>	<b>18,617</b>	<b>2,203</b>	<b>131</b>	<b>—</b>	<b>(2,789)</b>	<b>18,162</b>
<b>Changes in equity for 2010</b>						
Total comprehensive loss for the year	—	—	—	—	(1,543)	(1,543)
Lapse of warrants	—	—	(131)	—	131	—
Employee share plans – cost under IFRS2 (note 17)	—	—	63	—	—	63
Issue of shares during year	1,048	297	—	(1,299)	—	46
<b>Balance at 31 December 2010</b>	<b>19,665</b>	<b>2,500</b>	<b>63</b>	<b>(1,299)</b>	<b>(4,201)</b>	<b>16,728</b>

**Consolidated cash flow statement**  
**For the year ended 31 December 2010**

	Notes	2010 £000	2009 £000
<b>Operating activities:</b>			
Loss for the year		(1,543)	(504)
Depreciation, depletion and amortisation	3	9	—
Share based payment charge		37	—
Finance income	6	(170)	(11)
Increase in trade and other receivables		(331)	(408)
Increase in trade and other payables, net of accruals related to investing activities		196	338
<b>Net cash used in operating activities</b>		<b>(1,802)</b>	<b>(445)</b>
<b>Investing activities</b>			
Acquisition of exploration and evaluation assets		(3,608)	(432)
Acquisition of property, plant and equipment		(220)	—
Interest received	6	170	11
<b>Net cash used in investing activities</b>		<b>(3,658)</b>	<b>(421)</b>
<b>Financing activities</b>			
Cash proceeds from issue of Ordinary Share Capital	16	46	17,210
Share issue costs	18	—	(1,121)
<b>Net cash from financing activities</b>		<b>46</b>	<b>16,089</b>
Net (decrease)/increase in cash and cash equivalents in the year		(5,414)	15,223
Cash and cash equivalents at the beginning of the year		17,501	2,278
<b>Cash and cash equivalents at the end of the year</b>	12	<b>12,087</b>	<b>17,501</b>

## Consolidated financial statements – notes

As at 31 December 2010

### 1 Accounting policies

#### (a) Basis of preparation of financial statements

The consolidated financial statements of IGas Energy plc (the “Company”) and subsidiaries (the “Group”) have been prepared under the historical cost convention in accordance with International Financial Reporting Standards, adopted for use by the European Union (“IFRSs”) as they apply to the Group for the year ended 31 December 2010, and with the Companies Act 2006. The accounts were approved by the board and authorised for issue on 20 May 2011. IGas Energy plc is a public limited company incorporated and registered in England and Wales.

The Group financial statements are presented in UK pound sterling and all values are rounded to the nearest thousand (£000) except when otherwise indicated.

During the year, the Group adopted the following new and amended IFRS which were applicable to the Group’s activities as of 1 January 2010.

#### International Accounting Standards (IFRS/IAS):

IFRS 2	Amendment to IFRS 2 – Group Cash-settled Share-based Payment Transactions – This amendment clarifies that there shall now be included transactions where the transfer of cash or other assets is based on the price (or value) of the equity instruments of another group entity. The Group has considered the effect of this interpretation and has concluded that it is not expected to have any impact on the financial statements.	1 January 2010
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Certain new standards, interpretations and amendments to existing standards have been published and are mandatory only for the Group’s accounting periods beginning on or after 1 January 2011 or later periods but which the Group has not adopted early. Those that may be applicable to the Group in future are as follows:

		<u>Effective date</u>
<b>International Accounting Standards (IFRS/IAS)</b>		
IAS 24	Amendment to IAS 24 – Related Party Disclosures – This amendment clarifies the definition of a related party to simplify the identification of such relationships and to eliminate inconsistencies in its application. The revised standard introduces a partial exemption of disclosure requirements for government-related entities. The Group has considered the effect of this interpretation and has concluded that there is no impact on the financial statements.	1 January 2011
IFRS 9	IFRS 9 – Financial Instruments: Classification and Measurement – IFRS 9 as issued reflects the first phase of the IASB’s work on the replacement of IAS 39 and applies to classification and measurement of financial assets as defined in IAS 39. The standard is effective for annual periods beginning on or after January 2013. In subsequent phases, the IASB will address classification and measurement of financial liabilities, hedge accounting and derecognition. The adoption of the first phase of IFRS 9 will have an effect on the classification and measurement of the Group’s financial assets. The Group will quantify the effect in conjunction with the other phases, when issued, to present a comprehensive picture.	1 January 2013

The Directors do not anticipate that the adoption of these standards and interpretations will either individually or collectively have a material impact on the Group’s financial statements in the period of initial application. The Group does not anticipate adopting these standards and interpretations ahead of their effective date.

## **Improvements to IFRS**

In May 2010 the IASB issued an omnibus of amendments to its standards. The amendments have not been adopted as they become effective for annual periods starting on or after either 1 July 2010 or 1 January 2011:

- IFRS 3 Business Combinations
- IFRS 7 Financial Instruments: Disclosures
- IAS 1 Presentation of Financial Statements
- IAS 27 Consolidated and Separate Financial Statements

The Group, however, expects no impact from the adoption of the amendments on its financial position or performance.

### **(b) Going concern**

After reviewing the Group's budgets and cash flow projections for 2011 and 2012, and taking into consideration the acquisition of Nexen Exploration UK Ltd and the placing in March 2011, the current operating environment, the risks and the Group's liquidity risk management outlined in Note 15, the Directors are satisfied that the Group has adequate resources to continue as a going concern. It is therefore appropriate to adopt the going concern basis in preparing the 2010 Annual Report and Financial Statements.

### **(c) Basis of consolidation**

The consolidated financial statements present the results of IGas Energy plc and its subsidiaries as if they formed a single entity. The financial statements of subsidiaries used in the preparation of consolidated financial statements are based on consistent accounting policies to the parent. All intercompany transactions and balances between Group companies, including unrealised profits arising from them, are eliminated in full. Where shares are issued to an Employee Benefit Trust, and the Company is the sponsoring entity it is treated as an extension of the entity.

At 31 December 2010 the Group comprised the Company and its subsidiaries Island Gas Limited and Island Gas Operations Limited (formerly KP Renewables (Operations) Ltd).

### **(d) Joint ventures**

The Group's licence interests are all held jointly with others under arrangements whereby unincorporated and jointly controlled ventures are used to explore, evaluate and ultimately develop and produce from its gas interests. Accordingly, the Group accounts for its share of assets, liabilities, income and expenditure of these jointly controlled assets, classified in the appropriate balance sheet and income statement headings, except where its share of such amounts remain the responsibility of another party in accordance with the terms of the carried interests as described at (h) below. Where the Group enters into a farm-up agreement involving a licence in the exploration and evaluation phase, the Group records all costs that it incurs under the terms of the joint operating agreement as amended by the farm-up agreement as they are incurred.

### **(e) Significant accounting judgements and estimates**

#### **Critical judgements in applying the Group's accounting policies**

The Group invests in the exploration, evaluation, development and production of gas in the UK. Costs are capitalised in accordance with the accounting policy as described at (h). Initial capitalisation of costs is based on management's judgement that capitalisation of such costs is in accordance to applicable standards and that over time there will be an economic benefit associated with such cost.

#### **Estimates and assumptions:**

The key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below:

- Carrying value of intangible exploration and evaluation assets:

The Group has capitalised intangible exploration and evaluation assets in accordance with IFRS 6, which are evaluated for impairment as described at (h) below. Any impairment reviews, where required, involves estimates and assumptions related to matters (when appropriate), such

as recoverable reserves; production profiles; review of forward gas and electricity prices; development, operating and off-take costs; nature of land access agreements and planning permissions; application of taxes; and other matters. Where the final outcome or revised estimates related to such matters differ from the estimates used in any earlier impairment reviews, the results of such differences, to the extent that they actually affect any impairment provisions, are accounted for when such revisions are made. Details of the Groups Intangible exploration and evaluation assets are disclosed in note 9.

**(f) Exceptional items**

Exceptional items are material items of income or expenditure which, in the opinion of the Directors, due to their nature and infrequency require separate identification on the face of the income statement to allow a better understanding of the financial performance in the year. A full explanation of such items is given, where applicable, in the notes to the financial statements.

**(g) Revenue**

Revenue comprises the invoiced value of goods and services supplied by the Group, net of value added tax and trade discounts. Revenue is recognised in the case of gas and electricity sales when goods are delivered and title has passed and in the case of services rendered only once a legally binding contract is in place. Amounts billed for services where the contract provides for their delivery over a period of time are recognised evenly over the relevant period; amounts due for all other services are recognised as the services are provided.

**(h) Non-current assets (intangible exploration and evaluation assets and property plant and equipment)**

**Intangible exploration and evaluation assets**

The Group accounts for exploration and evaluation costs in accordance with the requirements of IFRS 6 "*Exploration for and Evaluation of Mineral Resources*" as follows:

- Exploration and evaluation assets are carried at cost less any impairment and are not depreciated or amortised.
- Expenditures recognised as exploration and evaluation assets comprise those related to acquisition of rights to explore; topographical, geological, geochemical and geophysical studies; exploratory drilling (including coring and sampling); activities in relation to evaluating the technical feasibility and commercial viability of extracting gas (including appraisal drilling and production tests); any land rights acquired for the sole purpose of effecting these activities. These costs include employee remuneration, materials and consumables, equipment costs and payments made to contractors.
- Any costs incurred prior to obtaining the legal rights to explore an area are expensed immediately to the Income Statement. Expenditures related to development and production activities are not recognised as exploration and evaluation assets.
- Tangible assets acquired for use in exploration and evaluation activities are classified as property, plant and equipment. However, to the extent that such tangible assets are consumed in developing an intangible exploration and evaluation asset, the amount reflecting that consumption is recorded as part of the exploration and evaluation asset.
- Expenditures recognised as exploration and evaluation assets are initially accumulated and capitalised by reference to appropriate geographic areas (cash generation units or CGU), which may not be larger than a business segment, currently the entirety of the Group's UK gas business.
- Expenditure recognised as exploration and evaluation assets are transferred to property plant and equipment, interests in oil and gas properties when technical feasibility and commercial viability of extracting gas is demonstrable. Exploration and evaluation assets are assessed for impairment (on the basis described below), and any impairment loss recognised, before reclassification.
- Expenditures recognised as exploration and evaluation assets are tested for impairment whenever facts and circumstances suggest that they may be impaired, which includes when a licence is approaching the end of its term and is not expected to be renewed; there are no

substantive plans for continued exploration or evaluation of an area; the Group decides to abandon an area; whilst development is likely to proceed in an area there are indications that the exploration and evaluation asset costs are unlikely to be recovered in full either by development or through sale.

- Net proceeds from any disposal of exploration and evaluation assets are initially credited against previously capitalised costs, with any surplus proceeds being credited to the consolidated Income Statement.

### **Property plant and equipment, interests in oil and gas properties**

Property plant and equipment, interests in oil and gas properties are accounted for as follows:

- Expenditure relating to evaluated properties is depleted on a unit-of-production basis, commencing at the start of commercial production. The depletion charge is calculated according to the proportion that production bears to the recoverable reserves for each property.
- The Group's property plant and equipment, interests in oil and gas properties are assessed for indications of impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable, when impairment is computed on the basis as set out below. Any impairment in value is charged to the Income Statement as additional depreciation.
- Net proceeds from any disposal of development/producing assets are compared to the previously capitalised costs for the relevant asset or group of assets. A gain or loss on disposal of a development/producing asset is recognised in the Income Statement to the extent that the net proceeds exceed or are less than the appropriate portion of the net capitalised costs of the asset or group of assets.

### **Impairment**

Impairment reviews, when required as described above, are carried out on the following basis:

- By comparing the sum of any amounts carried as exploration and evaluation assets and as property plant and equipment as compared to the recoverable amount.
- The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. The Group generally relies on fair value less cost to sell assessed either by reference to comparable market transactions between a willing buyer and a willing seller or on the same basis as used by willing buyers and sellers in the oil and gas industry. When assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.
- Where there has been a charge for impairment in an earlier period, that charge will be reversed in a later period where there has been a change in circumstances to the extent that the recoverable amount is higher than the net book value at the time. In reversing impairment losses, the carrying amount of the asset will be increased to the lower of its original carrying value and the carrying value that would have been determined (net of depletion) had no impairment loss been recognised in prior periods.

### **Decommissioning**

Where a liability for the removal of production facilities or site restoration exists, a provision for decommissioning is recognised. The amount recognised is discounted to its present value and is reflected in the Group's non-current liabilities. A corresponding asset is included in the appropriate category of the Group's Non-current assets (intangible exploration and evaluation assets and property plant and equipment), depending on the accounting treatment adopted for the underlying operations/asset leading to the decommissioning provision. The asset is assessed for impairment and or depleted in accordance with the Group's policies as set out above.

### **Carried interests**

Where the Group has entered into carried interest agreements and the Group's interest is being carried by a third party, no amounts are recorded in the financial statements where expenditure incurred under such agreements is not refundable. Where expenditure is refundable, out of what would but for the carry agreements have been the Group's share of production, the Group records amounts as non-current assets, with a corresponding offset in current liabilities or non-current liabilities, as



appropriate, but only once it is apparent that it is more likely than not that future production will be adequate to result in a refund under the terms of any carry agreement; the Group records refunds only to the extent that they are expected to be repayable.

### **Non oil and gas related property plant and equipment**

Other property plant and equipment is stated at cost less accumulated depreciation. Depreciation is provided at rates calculated to write off the cost of fixed assets, less their estimated residual values, over their estimated useful lives at the following rates, with any impairment being accounted for as additional depreciation:

Computer equipment	– over three years on a straight line basis
Motor Vehicles	– over four years on a straight line basis
Furniture and fixtures	– over five years on a straight line basis
Equipment used for exploration and evaluation	– between six and twelve years on a straight line basis
Leasehold property improvements	– over the period of the lease

The Group does not capitalise amounts considered to be immaterial.

### **(i) Financial instruments**

#### **Cash and cash equivalents**

Cash and cash equivalents comprise cash on hand and cash held on current account or on short-term deposits at variable interest rates with original maturity periods of up to three months. Any interest earned is accrued monthly and classified as interest income within finance income.

#### **Trade and other receivables**

Trade receivables are initially recognised at fair value when related amounts are invoiced, then carried at this amount less any allowances for doubtful debts or provision made for impairment of these receivables.

#### **Trade and other payables**

These financial liabilities are all non interest bearing and are initially recognised at the fair value of the consideration payable.

#### **Impairment of financial assets**

In relation to trade receivables, a provision for impairment is made when there is objective evidence (such as the probability of insolvency or significant financial difficulties of the debtor) that the Group will not be able to collect all of the amounts due under the original terms of the invoice. The carrying amount of receivables is reduced through use of an allowance account. Impaired debts are derecognised when they are assessed as uncollectible.

### **(j) Leases**

The determination of whether an arrangement is, or contains a lease is based on the substance of the arrangement at inception date including whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset.

#### **Operating leases**

Rentals are charged to the Income Statement on a straight line basis over the period of the lease.

### **(k) Taxation**

The tax expense represents the sum of current tax and deferred tax.

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered or paid to the tax authorities. Taxable (loss)/profit differs from the (loss)/profit before taxation as reported in the Income Statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.



Deferred tax is recognised in respect of all temporary differences that have originated but not reversed at the balance sheet date. Temporary differences arise from differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred tax liabilities are not discounted. Deferred tax assets are recognised to the extent that it is regarded as more likely than not that they will be recovered.

#### **(l) Share based payments**

Where share options or warrants are awarded to employees (including Directors), the fair value of the options or warrants at the date of the grant is recorded in equity over the vesting period. Non-market vesting conditions, but only those related to service and performance, are taken into account by adjusting the number of equity instruments expected to vest at each balance sheet date so that, ultimately, the cumulative amount recognised over the vesting period is based on the number of options that eventually vest. All other vesting conditions, including Market vesting conditions, are factored in to the fair value of the options or warrants granted. As long as all other vesting conditions are satisfied, the amount recorded is computed irrespective of whether the Market vesting conditions are satisfied. The cumulative amount recognised is not adjusted for the failure to achieve a Market vesting condition; although equity no longer required for options or warrants may be transferred to another equity reserve.

Where the terms and conditions of options or warrants are modified before they vest, the increase in the fair value of the options, measured immediately before and after the modification, is also recorded in equity over the remaining vesting period.

Where equity instruments are granted to persons other than employees, the amount recognised in equity is the fair value of goods and services received.

Charges corresponding to the amounts recognised in equity are accounted for as a cost against profit and loss unless the services rendered (and discharged by share based payments) relate to an issuance of equity or qualify for capitalisation as a non-current asset. In the case of an issuance of equity, the charge is to the same equity reserve as cash costs related to such an issuance would be charged. Costs may be capitalised within non-current assets in the event of services being rendered in connection with an acquisition or intangible exploration and evaluation assets or property plant and equipment.

Where shares are issued to an Employee Benefit Trust, and the Company is the sponsoring entity, the value of such shares at issue will be recorded in share capital and share premium account in the ordinary way, but will not affect shareholders' funds since this same value will be shown as a deduction from shareholders' funds by way of a separate component of equity (Treasury shares).

#### **(m) Equity**

Equity instruments issued by the Company are usually recorded at the proceeds received, net of direct issue costs, and allocated between called up share capital and share premium accounts as appropriate.

#### **(n) Foreign currency**

Transactions denominated in currencies other than the functional currency UK pound sterling are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are re-translated at the rate of exchange ruling at the balance sheet date. All differences that arise are recorded in the income statement.

## **2 Revenue and segment information**

IFRS 8 requires operating segments to be identified on the basis of internal reports about components of the Group that are regularly reviewed by the Chief Operating Decision Maker ("CODM") to make decisions about resources to be allocated to the segment and assess its performance, and for which financial information is available. In the case of the Group the CODM are the Chief Executive Officer and the Board of Directors and all information reported to the CODM is based on the consolidated results of the Group as a single operating segment as the Group's activities all relate to unconventional gas, including CBM in the UK. Therefore the Group has only one operating and reportable segment as reflected in the Group's consolidated financial statements.

All revenue which represents turnover arises within the United Kingdom and relates to external parties. The revenue for 2010 and 2009 related to the supply of CBM services and expertise under management service contracts (£536 thousand), to the supply of electricity generation services and to sales of electricity associated with CBM production (£120 thousand). £592 thousand of the Group's revenue was derived from a single customer (2009: £816 thousand).

All the Group's non-current assets are in the United Kingdom.

### 3 Operating loss

	2010 £000	2009 £000
Operating loss is stated after charging:		
Staff Costs (see notes 4 and 5)	1,123	807
Depreciation	9	—
Auditor's remuneration:		
Audit of the financial statements	57	35
Other fees paid to Ernst & Young LLP – Audits of subsidiaries	10	43

£39 thousand of the Group's remuneration costs has been capitalised in accordance with the Group's accounting policy.

### 4 Employee information

	2010 £000	2009 £000
Staff costs comprised:		
Wages and salaries	923	718
Social Security Costs	137	89
Employee share based cost under IFRS 2	63	—
	1,123	807
	No.	No.
Average number of employees in the period:		
Operations, including services	4	3
Administrative	2	2
	6	5

£39 thousand of the Group's remuneration costs has been capitalised in accordance with the Group's accounting policy.

### 5 Directors' emoluments

The remuneration of the Directors for the year was as follows:

	Salary/Fees £000	Bonus £000	Taxable Benefits £000	Pensions £000	2010 Total £000	2009 Total £000
<b>Executive Directors</b>						
F Gugen – Executive Chairman (to 19 October)	83	—	—	—	83	150
A Austin – Chief Executive Officer	235	117	1	—	353	300
B Cheshire – Executive Technical Director	100	25	—	—	125	150
J Blaymires – COO (Appointed 19 October 2010)	29	9	1	—	39	—
Total – Executive Directors	447	151	2	—	600	600
<b>Non-Executive Directors</b>						
F Gugen – Non-Executive Chairman (from 19 October)	17	—	—	—	17	—
J Bryant – Senior Independent	35	—	—	—	35	20
R Armstrong	35	—	—	—	35	20
J Hamilton – (Appointed 10 December 2009)	35	—	—	—	35	1
P Redmond (Resigned 10 December 2009)	—	—	—	—	—	29
Total – Non-Executive Directors	122	—	—	—	122	70

## Directors' share schemes/warrants

At 31 December 2010 the Executive Directors held the following awards under the Long Term Incentive Plan and the Share Option scheme as follows;

### Long Term Incentive Plan

	2010 Number	Exercise price (p/share)	2009 Number	Exercise price (p/share)
A Austin	700,000	—	—	—
J Blaymires	375,000	—	—	—

### Share Option Plan

	2010 Number	Exercise price (p/share)	2009 Number	Exercise price (p/share)
J Blaymires	910,930	70	—	—

### Warrants

At 31 December 2010 the Directors held the following warrants over the Ordinary Shares of 50p each of the Company as follows;

	2009 Number	Exercise price (p/share)	Lapsed in year	2010 Number
R J Armstrong	82,500	55	(82,500)	—
	27,500	75	(27,500)	—
J Bryant	82,500	55	(82,500)	—
	27,500	75	(27,500)	—

## 6 Finance income

	2010 £000	2009 £000
Interest receivable comprised:		
Interest on short-term deposits	170	11

## 7 Tax on loss on ordinary activities

	2010 £000	2009 £000
UK corporation tax:		
Current tax on income for the year	—	—
Total UK taxation	—	—
Tax on loss on ordinary activities	—	—

### Factors affecting the tax charge

The tax assessed for the year does not reflect a credit equivalent to the loss on ordinary activities multiplied by the small profits rate of corporation tax in the United Kingdom of 21% (2009: 21%). A reconciliation of the UK small companies statutory corporation tax rate applicable to the Group's loss before tax to the Group's total tax charge is as follows:

	2010 £000	2009 £000
(Loss) on ordinary activities before tax	(1,543)	(504)
(Loss) on ordinary activities multiplied by the small profit rate of corporation tax in the UK for small companies of 21% (2009: 21%)	(324)	(106)
Tax effect of expenses not allowable for tax purposes	6	1
Net increase in unrecognised losses carried forward	318	105
Tax on loss on ordinary activities	—	—

## Tax losses

The Group's tax losses amount to:

	<u>2010</u> <u>£000</u>	<u>2009</u> <u>£000</u>
<b>Not considered sufficiently certain of utilisation to set up deferred tax assets*:</b>		
<b>Company:</b>		
Excess management expenses	4,830	3,488
Related to Share based payment transactions	<u>13</u>	<u>—</u>
<b>IGL:</b>		
Petroliferous – Trading loss	<u>156</u>	<u>17</u>
<b>Island Gas Operations Limited (“IGO”):</b>		
Trading loss	<u>1,200</u>	<u>1,200</u>
<b>Not affecting deferred taxes, as they relate to undepreciated capitalised costs**:</b>		
<b>IGL:</b>		
Petroliferous – Minerals extraction allowances	<u>4,644</u>	<u>1,386</u>

\* Deferred tax losses have not been recognised in respect of temporary differences of Group companies whose future profits are not considered sufficiently certain to offset these temporary differences.

\*\* As at 31 December 2010 no temporary difference arises as a result of Minerals Extraction Allowances as they have not been claimed and depreciation of the related capitalised costs has not commenced (2009: nil).

In 2009 IGL was awarded a Field Development Plan and so commenced a Petroliferous Trade (as defined for tax purposes), which will enable it to offset its losses against any future Petroliferous Trade profits. IGO's losses may only be offset against future profits of IGO, if any. The tax losses have no expiry date.

## 8 Earnings per share (EPS)

Basic EPS amounts are calculated by dividing the loss for the year attributable to ordinary equity holders of the parent by the weighted average number of Ordinary Shares outstanding during the year.

Diluted EPS amounts are calculated by dividing the loss attributable to the ordinary equity holders of the parent by the weighted average number of shares outstanding during the year plus the weighted average number of Ordinary Shares that would be issued on the conversion of all the dilutive potential Ordinary Shares into Ordinary Shares.

The following reflects the income and share data used in the basic and diluted earnings per share computations:

	<u>2010</u>	<u>2009</u>
Basic EPS – Ordinary Shares of 50p each (£)	(0.0169)	(0.0076)
Diluted EPS – Ordinary Shares of 50p each (£)	(0.0169)	(0.0076)
(Loss) for the year attributable to equity holders of the parent – £000	(1,543)	(504)
Weighted average number of Ordinary Shares in the year – basic EPS	91,070,160	66,412,564
Weighted average number of Ordinary Shares in the year – diluted EPS	91,070,160	66,412,564

There are 2,447,304 potentially dilutive warrants and options over the Ordinary Shares at 31 December 2010 (2009: 440,450), which are not included in the calculation of diluted earnings per share because they were anti-dilutive for the year as their conversion to Ordinary Shares would decrease the loss per share.

## 9 Intangible exploration and evaluation assets

	2010 £000	2009 £000
<b>Cost</b>		
At 1 January	1,334	476
Additions	3,310	858
At 31 December	4,644	1,334
<b>Amortisation</b>		
At 1 January	—	—
Charge for the year, including impairment	—	—
At 31 December	—	—
<b>Net book amount</b>		
At 31 December	4,644	1,334
At 1 January	1,334	476

Under certain agreements which the Group had in place with Nexen Exploration U.K. Limited (“Nexen” and the “Nexen Carry Agreements”) as at 31 December 2010, Nexen provides 100% of the funding required for work programmes up to a gross spend of £26.5 million. The repayment to Nexen of any amounts carried under these arrangements was dependent, on a licence by licence basis, on successful operations yielding sufficient production to support repayment in accordance with terms of the Nexen Carry Agreements. At 31 December 2010 £5.6 million had been carried (2009: £5.1 million), which has not been recorded as either non-current assets or liabilities, since to 31 December 2010 expenditure has been mainly related to appraisal work and repayment was not then sufficiently certain.

On 5 August 2009 and 11 December 2009 the Group entered into farm-up agreements with Nexen (the “Farm-up Agreements”), under which the Group had agreed to meet 100% of certain costs incurred in relation to certain licences, thereby discharging what, but for these agreements, would have been Nexen’s share of such licence costs. The Group’s commitment was for up to £2 million of gross costs in the case of the agreement of 5 August 2009 and for £5 million of gross costs in the case of the agreement of 11 December 2009. In return the Group’s interest in the Swallowcroft licences in Staffordshire (excluding PEDL 78-2) rose from 20% to 35%, in the Point of Ayr licences from 50% to 75% and in Northwest licences from 20% to 35%.

## 10 Property, plant and equipment

	Used for Exploration and Evaluation £000	Fixtures, fittings and equipment £000	Motor vehicles £000	Total £000
<b>Cost</b>				
At 1 January 2009 and 1 January 2010	—	—	—	—
Additions	179	21	20	220
Disposals	—	—	—	—
At 31 December 2010	179	21	20	220
<b>Accumulated depreciation</b>				
At 1 January 2009 and 1 January 2010	—	—	—	—
Charge for the year	6	4	5	15
Disposals	—	—	—	—
At 31 December 2010	6	4	5	15
<b>Carrying amount</b>	<b>173</b>	<b>17</b>	<b>15</b>	<b>205</b>
At 31 December 2010	—	—	—	—
At 31 December 2009	—	—	—	—

## 11 Trade and other receivables

	<b>2010</b> <b>£000</b>	<b>2009</b> <b>£000</b>
VAT recoverable	<b>375</b>	99
Trade debtors	<b>61</b>	114
Accrued income	<b>73</b>	—
Other debtors	—	3
Prepayments	<b>80</b>	42
	<b>589</b>	258

The carrying value of each of the Group's financial assets being trade debtors is considered to be a reasonable approximation of its fair value.

All of the Group's financial assets are from debtors of good credit standing and have been reviewed for indicators of impairment and no impairment provision was found to be required (2009: £nil).

The maximum exposure to credit risk at the reporting date is the carrying value of each class of assets listed in the table above.

The trade debtor balance reported above is from one customer which represents a concentration of credit risk.

Of the Group's financial assets as stated above £61 thousand (2009: £114 thousand) were past due but not impaired at the reporting date, of which the ageing was:

	<b>2010</b> <b>£000</b>	<b>2009</b> <b>£000</b>
Not more than three months	61	50
More than three months but not more than six months	—	64
More than six months but not more than one year	—	—
	<b>61</b>	<b>114</b>

## 12 Cash and cash equivalents

	<b>2010</b> <b>£000</b>	<b>2009</b> <b>£000</b>
Cash at bank and in hand	<b>12,087</b>	17,501
	<b>12,087</b>	17,501

The carrying value of the Group's cash and cash equivalents as stated above is considered to be a reasonable approximation of their fair value.

The Group only deposits cash surpluses with major banks that have acceptable credit ratings of "AA" or better, except that the Group will make deposits with banks where the UK government is the major shareholder.

## 13 Current liabilities

	<b>2010</b> <b>£000</b>	<b>2009</b> <b>£000</b>
Trade and other payables:		
Trade creditors	<b>240</b>	109
Employment related taxation	<b>42</b>	102
Deferred revenue	—	89
Accruals and other creditors	<b>515</b>	631
	<b>797</b>	931

The carrying value of each of the Group's financial liabilities being trade creditors is considered to be a reasonable approximation of its fair value. All creditors are payable within one month and no creditors have been outstanding for longer than three months (2009: all within one month).

## 14 Commitments

The Group's capital and lease commitments comprised:

	2010 £000	2009 £000
Capital Commitments:		
Obligation under 13 <sup>th</sup> licensing round	1,000	1,000
Decommissioning	26	26
Less: Amounts covered by Nexen Carry Agreements	(141)	(637)
	885	389
Obligation under the 11 December 2009 farm-up agreement with Nexen	2,036	5,000
<b>Total capital commitments</b>	<b>2,921</b>	<b>5,389</b>

The Nexen Carry Agreements and the farm-up agreements are as further described in note 9, including the up to £2 million provided for by the first farm-up agreement, which is not a firm binding commitment.

### Operating lease commitments:

Minimum lease payments under operating leases recognised in income for the year	63	35
At the balance sheet date the Group had outstanding commitments for future minimum lease payments under non cancellable operating leases, all falling due in under one year	45	64

## 15 Financial instruments

The Group's financial instruments principally comprise cash at bank, and various items such as trade debtors and creditors that arise directly from operations. The main purpose of these financial instruments is to provide finance for the Group's operations.

### Financial assets and liabilities

The Group's policy is to ensure that adequate cash is available and the Group does not trade in financial instruments and has not entered into any derivative transactions.

### Liquidity risk

Liquidity risk arises from the Group's management of working capital and is the risk that the Group will not be able to meet its financial obligations as they fall due. Cash forecasts and plans are updated frequently and reviewed regularly by management and the Board. The Groups liquidity requirements have been met principally through the Nexen Carry Agreements and internal cash resources. The Group has no long-term borrowings, and based on current projections the Group has sufficient funds to meet current obligations as they fall due. Details of the maturity dates of the Group's financial liabilities are provided in note 13.

### Interest rate risk profile of financial assets

Cash at bank earns interest at floating rates related to the published rate of the bank.

### Interest rate sensitivity analysis

The Group is exposed to interest rate risk from changes in interest rates impacting future cash flows arising from its financial instruments, principally cash balances held at the balance sheet date. A sensitivity analysis has been performed to demonstrate the sensitivity of financial assets and financial liabilities to a reasonably possible change in interest rates applied to a full year from the balance sheet date, assuming the amount of the assets at balance sheet date are available for the whole year. An increase/ decrease in interest rates of 50 basis points, with all other variables held constant, results in an decrease/ increase in the Group's loss before tax of £60 thousand /£(60) thousand respectively (2009: decrease/ increase of £88 thousand /£(88) thousand). There is no effect on the Group's equity other than the equivalent effect to that on loss before tax. This is wholly attributable to the Group's exposure to interest rates on its variable rate cash and cash equivalents.

### Credit risk

The maximum exposure to credit risk is equal to the balances as disclosed for trade debtors in note 11 and for cash in note 12.



## Cash and Treasury

Cash and treasury credit risks are mitigated through the exclusive use of institutions that carry published grade “AA” or better credit ratings so as to minimise counterparty risk, except that the Group will make deposits with banks where the United Kingdom government is the major shareholder. £11.7 million (2009: £16 million) of cash and cash equivalents is deposited with a single institution.

## Trade receivables

Trade receivables credit risks are mitigated by only dealing with institutions that have investment grade credit ratings. £61 thousand (2009: £111 thousand) of trade receivables are due from a single counterparty.

## Capital management

The Group considers its capital to comprise its Ordinary Share capital and share premium. In managing its capital, the Group’s primary objective is to ensure its continued ability to provide a return to equity shareholders, principally through capital growth. The Group currently has no borrowings. The Group’s principal cash source has been the issuance of share capital.

## 16 Share capital

On 31 December 2007 the Company completed a reverse takeover whereby IGL became a wholly-owned subsidiary of the Company but with IGL’s shareholders acquiring 94% of the Ordinary Share capital of the combined entity (the “Reverse”).

In accordance with the required accounting for a reverse, the nominal value of the Company’s share capital is not reflected in the Group’s consolidated equity. For the purposes of the consolidated accounts share capital was recorded at the date of the Reverse at a value equal to the deemed cost of the Reverse, being the adjusted market value of the Company as last quoted immediately prior to the announcement of the Reverse, plus the equity of IGL; the effective acquiring company.

Accordingly, share capital and the share capital account comprised:

	Ordinary Shares		Deferred shares	
	No.	£000 Nominal value	No.	£000 Nominal value
<b>Authorised</b>				
<b>1 January 2009, Ordinary Shares of 50p each</b>	<b>89,114,796</b>	<b>44,557</b>		
<b>1 January 2009, Deferred Shares of 95p each</b>			<b>46,589,662</b>	<b>443</b>
10 December 2009 new Ordinary Shares created	22,916,667	11,459		
<b>31 December 2009</b>	<b>112,031,463</b>	<b>56,016</b>	<b>46,589,662</b>	<b>443</b>
<b>31 December 2010</b>	<b>112,031,463</b>	<b>56,016</b>	<b>46,589,662</b>	<b>443</b>
	Ordinary Shares		Deferred shares	
	No.	£000 Nominal value	No.	£000 Nominal value
<b>Issued and fully paid</b>				
<b>1 January 2009, Ordinary Shares of 50p each</b>	<b>62,329,642</b>	<b>31,165</b>		
14 July 2009 shares issued	5,766,666	2,883		
10 December 2009 shares issued	22,916,667	11,459		
<b>31 December 2009, Ordinary Shares of 50p each</b>	<b>91,012,975</b>	<b>45,507</b>	<b>—</b>	<b>—</b>
23 April 2010 shares issued	82,500	41		
26 October 2010 shares issued	2,013,956	1,007		
<b>31 December 2010, Ordinary Shares of 50p each</b>	<b>93,109,431</b>	<b>46,555</b>	<b>—</b>	<b>—</b>
		£000		
<b>Share capital account</b>				
<b>At 1 January 2009</b>		<b>4,275</b>		
Shares issued during the year		<b>14,342</b>		
<b>At 31 December 2009</b>		<b>18,617</b>		
Shares issued during the year		<b>1,048</b>		
<b>At 31 December 2010</b>		<b>19,665</b>		



The following share transactions took place since 1 January 2009:

- 14 July 2009 – The Company issued 5,766,666 Ordinary 50p Shares at a price of 60p each;
- 10 December 2009 – The Company issued 22,916,667 Ordinary 50p Shares at a price of 60p each;
- 23 April 2010 – The Company issued 82,500 Ordinary 50p Shares at a price of 55p each; and
- 26 October 2010 – The Company issued 2,013,956 Ordinary 50p shares at a price of 64.5p each

Deferred shares have no voting rights and shall not be entitled to any dividends or any other right or participation in the profits of the Group.

## 17 Share plan/warrant reserve

The Company has made equity settled share based payments, valued as follows:

	2010 £000	2009 £000
Directors:		
Balance 1 January	131	167
Transfer to retained earnings/(accumulated deficit) account re warrants	(131)	(36)
Employee share plans – cost under IFRS 2	63	—
Balance 31 December	63	131

## Warrants

All warrants vested on grant and accordingly the key assumptions made in arriving at the Black–Scholes valuations were: share price on date of grant, adjusted for subsequent consolidations where appropriate and the length of time for which the warrants were expected to remain exercisable. A long-term risk free interest rate of 5% and an implied volatility of 20% were used in valuing the warrants at the time of granting. It was also assumed that no dividends would be paid during the life of the warrants.

Movement in the Share warrant reserve during the year was as follows:

	2010 No	2010 Weighted average exercise price (pence)	2009 No	2009 Weighted average exercise price (pence)
At 1 January	440,000	60	523,830	58
Exercised in Period	(82,500)	55	—	—
Lapsed in Period	(357,500)	60	(83,830)	50
<b>Outstanding at 31 December</b>	—	—	440,000	60
<b>Exercisable at 31 December</b>	—	—	440,000	60

The weighted average remaining contractual life for the warrants outstanding as at 31 December 2010 is nil (2009: 12 months) with no maximum remaining term of options granted, (2009: 12 months).

## Employee share plans – Equity settled

### Long Term Incentive Plan (“LTIP”)

In October 2010 the Company adopted a Long Term Incentive Plan scheme for certain key employees of the Group. Under the LTIP, participants can each be granted nil cost options over up to 1.5% of the issued share capital of the Company (subject to an overall plan limit of 7.5% of the issued share capital of the Company for all participants). The LTIP has a three year performance period and awards vest subject to the achievement of stretching share price targets. On a change of control prior to the third anniversary of the grant date, a revised share price target reflecting the reduction in the performance period shall instead be used to determine the extent to which LTIP options vest. Other than on a change of control, 50% of vested awards can be exercised and sold on vesting, with the remaining 50% becoming exercisable on the first anniversary of vesting.

Details of the LTIPs outstanding during the year are as follows:

	Number of LTIPs	2010 Weighted average exercise price (in £)	LTIPs	2009 Weighted average exercise price (in £)
Outstanding at beginning of year	—	—	—	—
Granted during the year	1,125,000	nil	—	—
Forfeited during the year	—	—	—	—
Exercised during the year	—	—	—	—
Outstanding at the end of the year	1,125,000	nil	—	—
Exercisable at the end of the year	—	—	—	—

There were no LTIPs exercised during the year. The LTIPs outstanding at 31 December 2010 had both a weighted average remaining contractual life and maximum term remaining of 9.75 years.

The total charge for the year was £6 thousand. Of this amount, £2 thousand was capitalised and £4 thousand was charged to the income statement in relation to the fair value of the awards granted under the LTIP scheme measured at grant date using a Monte Carlo Simulation Model.

The inputs into the Monte Carlo model were as follows:

	2010
Weighted average share price	64.5p
Weighted average exercise price	Nil
Expected volatility	35%
Expected life	6.5 years
Risk-free rate	1.09%
Expected dividends	0%

The expected life is the period from date of grant to the assumed exercise date. Expected volatility was determined by calculating the historical volatility of the Company's share price. The weighted average fair value of the awards granted in 2010 was 6p (2009: nil).

#### Share Option plan

In October 2010 the Company adopted a Share option plan for certain key employees of the Group. Both executives and employees may participate in the Share Option Plan. Typically each individual participant can be granted options under the Share Option Plan with a market value at grant of up to 100% of his base salary, although this limit can be exceeded in exceptional circumstances. Share options vest in three equal tranches over a three year period from the date of grant and vested options are exercisable subject to the attainment of a Company share price target.

2010 grants under the Share Option Plan are subject to an exercise price of 70p per share.

Details of the Share options outstanding during the year are as follows:

	Number of share options	2010 Weighted average exercise price (in £)	Number of share options	2009 Weighted average exercise price (in £)
Outstanding at beginning of year	—	—	—	—
Granted during the year	1,322,204	0.70	—	—
Forfeited during the year	—	—	—	—
Exercised during the year	—	—	—	—
Outstanding at the end of the year	1,322,204	0.70	—	—
Exercisable at the end of the year	—	—	—	—

There were no Options exercised during the year. The unvested Options outstanding at 31 December 2010 had both a weighted average remaining contractual life and maximum remaining term of 9.75 years.

The total charge for the year was £57 thousand. Of this amount, £24 thousand was capitalised and £33 thousand was charged to the income statement in relation to the fair value of the awards granted under the Share Option scheme measured at grant date using a Monte Carlo Simulation Model.

The inputs into the Monte Carlo model are as follows:

	2010
Weighted average share price	64.5p
Weighted average exercise price	Nil
Expected volatility	35%
Expected life	5 – 6.5 years
Risk-free rate	1.09%
Expected dividends	0%

The expected life is the period from date of grant to the assumed exercise date. Expected volatility was determined by calculating the historical volatility of the Company's share price. The weighted average fair value of the awards granted in 2010 was 12p (2009: nil).

## 18 Other reserves

- Share premium account – The share premium account of the Group arises from the capital that the Company raises upon issuing shares for consideration in excess of the nominal value of the shares net of the costs of issuing the new shares. During the year the Company issued 82,500 and 2,013,956 Ordinary 50p Shares at a price of 55p and 64.5p each (2009: 28,683,333 Ordinary 50p Shares at a price of 60p each). The cost of the issue was nil (2009: £1,121 thousand). Together these events resulted in a net movement in the Share Premium reserve of £297 thousand (2009: £1,783 thousand).
- Treasury shares – The Treasury shares of the Group has arisen in connection with the shares issued to the IGas Employee Benefit Trust, of which the Company is the sponsoring entity. The value of such shares is recorded in share capital and share premium account in the ordinary way and is also shown as a deduction from equity in this separate other reserve account; and so there is no net effect on shareholders' funds. During the period 2,013,956 shares were issued to the Employee Benefit Trust.
- Retained earnings/(accumulated deficit) – This represents the historic accumulated losses less profits made by the Group accounted for under reverse accounting as explained in Note 1(m) and from transfers from the Share plan/warrant reserve, when warrants lapse.

## 19 Related party transactions

### Key management personnel

There are no key management personnel other than Directors of the Company.

	2010 £000	2009 £000
Short-term employee benefits	854	746
Share plan	22	—
	<u>876</u>	<u>746</u>

### Short-term employee benefits

These amounts comprise fees paid to the Directors in respect of salary and benefits earned during the relevant financial year, plus bonuses awarded for the year.

### Share plan

This is the cost to the Group of Directors' participation in LTIPs and Share Option plans, as measured by the fair value of LTIPs and options granted, accounted for in accordance with IFRS 2.

Further details regarding transactions with the Directors of the Group are disclosed in Note 5.

There are no other related party transactions.

## **20 Subsequent events**

On 9 March 2011, the Company acquired the entire issued share capital of Nexen Exploration UK Limited (renamed IGas Exploration Limited) for a consideration of £25.6 million (the “Acquisition”). 39,714,290 new ordinary shares of 50p were allotted to Nexen Petroleum U.K. Limited credited as fully paid in consideration for the Acquisition. The acquisition is aligned with the Group’s strategy by securing 100% ownership of assets and operatorship through the purchase of Nexen Exploration UK Limited.

The Company raised gross proceeds of £20.625 million for 27,500,000 new ordinary 50p shares when the Acquisition became unconditional on 9 March 2011.

Following completion of the Placing and the Acquisition, the Company’s current issued share capital is 160,323,721 ordinary shares.

On 22 March 2011, A Austin disposed of 770,000 shares.

## PART 6

### PART A UNAUDITED FINANCIAL INFORMATION ON STAR GROUP

**Historical Unaudited Combined Financial Information relating to the Target Group for the three years ended 31 March 2011**

#### **Historical Unaudited Combined Income Statement**

<u>For the years ended 31 March</u>	<u>2009 £'000</u>	<u>2010 £'000</u>	<u>2011 £'000</u>
<b>Revenue</b>	47,075	43,510	53,285
<b>Cost of Sales:</b>			
Depletion, depreciation and amortisation	(5,366)	(6,594)	(6,229)
Other costs of sales	(45,255)	(17,248)	(17,859)
<b>Total cost of sales</b>	<u>(50,621)</u>	<u>(23,842)</u>	<u>(24,088)</u>
<b>Gross profit / (loss)</b>	<b>(3,546)</b>	<b>19,668</b>	<b>29,197</b>
Administration expenses	(6,688)	(7,167)	(4,898)
Impairment of unsuccessful exploration and evaluation assets	(19,114)	2,755	(3,209)
Other income	1,007	934	356
Profit on sale of fixed assets	(10)	101	2
<b>Operating profit / (loss)</b>	<u>(28,351)</u>	<u>16,291</u>	<u>21,448</u>
Finance income	313	2,815	3,925
Finance costs	(26,881)	(2,730)	(2,827)
Share of net gain in associate	207	415	—
<b>Profit / (loss) before taxation</b>	<b>(54,712)</b>	<b>16,791</b>	<b>22,547</b>
Income tax	8,523	(12,895)	(15,642)
<b>Retained profit / (loss) for the financial year</b>	<u><b>(46,189)</b></u>	<u><b>3,896</b></u>	<u><b>6,905</b></u>

## Historical Unaudited Combined Balance Sheet

For the years ended 31 March	2009 £'000	2010 £'000	2011 £'000
<b>Non-current assets</b>			
Intangible assets	8,513	9,566	12,400
Property, plant & equipment	86,574	95,108	96,699
Investment in associate	207	622	1,488
Other investments	530	—	—
<b>Total non-current assets</b>	<b>95,824</b>	<b>105,296</b>	<b>110,587</b>
<b>Current assets</b>			
Inventories	665	243	206
Trade and other receivables	10,965	12,479	9,564
Related party debtors	105,313	104,746	51,759
Cash at bank and in hand	1,171	15,582	32,626
<b>Total current assets</b>	<b>118,114</b>	<b>133,050</b>	<b>94,155</b>
<b>TOTAL ASSETS</b>	<b>213,938</b>	<b>238,346</b>	<b>204,742</b>
<b>Current liabilities</b>			
Trade and other payables	(12,708)	(7,303)	(12,815)
Borrowings	(84)	(77)	(82)
<b>Total current liabilities</b>	<b>(12,792)</b>	<b>(7,380)</b>	<b>(12,897)</b>
<b>Non-current liabilities</b>			
Borrowings	(210)	(133)	(51)
Loans from related parties	(104,401)	(113,751)	(59,208)
Deferred tax liabilities	(6,805)	(19,677)	(26,757)
Provisions	(4,916)	(8,763)	(10,241)
<b>Total non-current liabilities</b>	<b>(116,332)</b>	<b>(142,324)</b>	<b>(96,257)</b>
<b>Net assets</b>	<b>84,814</b>	<b>88,642</b>	<b>95,588</b>
<b>Capital and reserves</b>			
Called up share capital	9,523	9,523	9,526
Share premium account	155,455	155,455	155,454
Merger reserve	(45,093)	(45,093)	(45,093)
Capital reserve	475	475	475
Retained (deficit)	(35,546)	(31,718)	(24,774)
<b>Total Equity</b>	<b>84,814</b>	<b>88,642</b>	<b>95,588</b>

## Introductory notes to the Historical Unaudited Combined Financial Information

### 1. Introduction

The Star Group<sup>1</sup> has historically comprised entities in the businesses of oil and gas exploration and production and gas storage. As part of the Transaction, IGas Energy plc will purchase all Star Group companies that are involved in the oil and gas exploration and production business of Star (the subject of the transaction being the “Target Group”). The principal activities of the legal entities that form the Target Group are as follows:

<u>Company</u>	<u>Principal activity</u>	<u>Equity interest</u>
Star Energy Group Ltd	Parent / Service company	100%
Star Energy Ltd	Service company	100%
Star Energy (East Midlands) Ltd	Previously, oil and gas exploration, development and production, and electricity generation, but all assets, liabilities and related trade were transferred to Star Energy Oil & Gas Ltd as of 31 March 2011 as part of a group wide restructuring	100%
Star Energy Oil & Gas Ltd (East Midlands)	Oil and gas exploration, development and production, and electricity generation	100%
Star Energy Oil UK Ltd	Previously, oil and gas development and production, but all assets, liabilities and related trade were transferred to Star Energy Weald Basin Ltd as of 31 March 2011 as part of a group wide restructuring	100%
Star Energy Weald Basin Ltd*	Oil and gas exploration, development and production, and electricity generation	100%
Larchford Limited (classified as an ‘associate’)	Oil rig contractor	33%

\* Star Energy Weald Basin Ltd includes the Humbly Grove and Herriard production and gas storage assets which will be excluded from the Transaction

The financial information in this document does not purport to indicate the results of operations or the financial position that would have resulted had the Target Group existed as a standalone group at the beginning of the period presented, nor is it intended to be indicative of expected results or operations in future periods or the future financial position of the Target Group.

### 2. Basis of preparation

The Target Group has not in the past constituted a separate legal group. Star Energy Group Ltd (“Star”), the immediate parent company of the Star Group, has historically consolidated all its subsidiaries, including those that are not part of the Target Group. As such, in the past separate consolidated financial statements have not been prepared solely in respect of the entities comprising the Target Group.

The combined financial information presented in this document, which has been prepared specifically for the purpose of the admission document and has not been audited, is prepared on a basis that combines the results and assets and liabilities of the Target Group by applying the principles underlying the consolidation procedures of IAS 27 *Consolidated and Separate Financial Statements* for each of the three years to 31 March 2009, 2010 and 2011 and as at those dates (“Historical Unaudited Combined Financial Information”).

The Historical Unaudited Combined Financial Information has been prepared in accordance with this basis of preparation. The basis of preparation describes how the financial information has been prepared in accordance with the accounting policies of IGas Energy plc under International Financial

<sup>1</sup> Star Group comprises: Star Energy (East Midlands) Ltd; Star Energy Oil & Gas Ltd; Star Energy Oil UK Ltd; Star Energy Weald Basin Ltd; Star Energy Ltd; Star Energy HG Gas Storage Ltd; Star Energy Gas Storage Services Ltd; Overseas Gas Storage Ltd; Gas Storage Ltd; Dansk Gaslager ApS; and Star Energy Group Ltd as parent / holding company.

Reporting Standards (“IFRS”) as adopted by the European Union except as described below. References to “IFRS” hereafter should be construed as references to IFRS as adopted by the EU.

IFRS does not provide for the preparation of combined financial information, and accordingly in preparing the Historical Unaudited Combined Financial Information certain accounting conventions commonly used for the preparation of historical financial information for inclusion in investment circulars as described in the Annexure to Standards for Investment Reporting issued by the UK Auditing Practices Board have been applied. The application of these conventions results in the following material departures from IGas Energy plc’s accounting policies under IFRS. In all other material respects these accounting policies have been applied.

- As explained above, the Historical Unaudited Combined Financial Information is prepared on a combined basis and therefore does not comply with the requirements of IAS 27 *Consolidated and Separate Financial Statements* for the preparation of consolidated financial statements. The financial information has therefore been prepared on a combined basis by applying the principles underlying the consolidation procedures of IAS 27.
- The Historical Unaudited Combined Financial Information presents only the Unaudited Combined Income Statement and Unaudited Combined Balance Sheet for each period presented. As such, the Historical Unaudited Combined Financial Information does not comply with all of the presentation and disclosure requirements of IFRS.
- The Historical Unaudited Combined Financial Information does not constitute a set of general purpose financial statements under paragraph 3 of IAS 1 Presentation of Financial Statements and consequently the Group does not make an explicit and unreserved statement of compliance with IFRS as contemplated by paragraph 14 of IAS 1.

The Historical Unaudited Combined Financial Information has been prepared on a historical cost basis, except for derivative financial instruments which have been measured at fair value.

The following summarises the accounting and other principles applied in preparing the Historical Unaudited Combined Financial Information:

- Transactions and balances between Target Group entities included within the Historical Unaudited Combined Financial Information have been eliminated.
- Transactions and balances between the Target Group and Petronas and its subsidiaries (excluding any member of the Target Group) (the “Petronas Group”) have been presented in the appropriate caption of the Historical Unaudited Combined Financial Information to which such transactions and balances relate.
- Subsidiaries and associates historically held by entities that are part of the Target Group but which do not form part of the Target Group have been carved out.
- Tax charges in the Historical Unaudited Combined Financial Information have been determined based on the tax charges recorded by the Target Group companies in their respective statutory financial statements as well as certain adjustments made for Star Group consolidation purposes, which may not reflect the adjustments had the Target Group entities been independent of the Petronas Group. The tax charges recorded in the Unaudited Combined Income Statements have been affected by the taxation arrangements within Star Group and are not therefore necessarily representative of the tax charges that would have been reported had the Target Group operated as standalone group.
- Certain assets and liabilities that are currently part of the legal entities that are included in the Target Group but which will not form part of the Transaction have been carved out from the Historical Unaudited Combined Financial Information.
- The Petronas Group has historically operated a central cash account whereby certain cash costs were settled centrally by the Petronas Group on behalf of the Target Group. Balances in respect of the central cash account have been presented as interest bearing loans and borrowings or loans and interest due from related parties.
- Interest income and expense recorded in the Unaudited Combined Income Statement have been affected by the historic financing arrangements within the Petronas Group, in particular those relating to central cash management. They are not necessarily representative of the interest



income and expenses that would have been reported had the Target Group been an independent group. They are not necessarily representative of the interest income and expense that may arise in the future.

- Star Energy Group Ltd and Star Energy Ltd have historically recharged most central corporate costs comprising director and staff and other SG&A costs to its subsidiaries, associates and other Petronas Group companies for which it provides services. In addition, the companies have recharged operating staff costs, which they have initially borne, to the individual operating subsidiaries. The remainder of the central corporate costs have not been recharged to the operating companies as part of the combined financial information exercise. The central corporate costs are not necessarily representative of those that would have been reported had the Target Group been an independent group. They are not necessarily representative of the central corporate costs that may arise in the future.

The reconciliations of the Unaudited Combined Balance Sheets and Income Statements to the UK GAAP statutory financial statements of the companies in the Target Group reflected in tables below reconcile the Historical Unaudited Combined Financial Information to the aggregation of the income statements and balance sheets extracted from the historical UK GAAP statutory financial statements in respect of each relevant entity for each of the three years to 31 March 2009, 2010 and 2011 and as at those dates.

**Target Group – reconciliation of Unaudited Combined Income Statements and related adjustments**

For the year ended 31 March 2011	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Weald Basin Ltd £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve Out Adjustments £'000	IFRS and Other Adjustments £'000	Notes	Unaudited Combined Income Statement £'000
<b>Revenue</b>	—	—	14,121	18,458	11,749	11,997	56,325	(2,958)	(82)	A.i / 1.a	53,285
<b>Cost of Sales:</b>											
Depletion, depreciation and amortisation	—	—	(2,862)	(1,074)	(1,471)	(1,448)	(6,855)	1,426	(800)	A.ii / 2.b	(6,229)
Other costs of sales	—	—	(7,580)	(5,320)	(3,207)	(4,461)	(20,568)	2,709	—	A.iii	(17,859)
<b>Total cost of sales</b>	—	—	(10,442)	(6,394)	(4,678)	(5,909)	(27,423)	4,135	(800)		(24,088)
<b>Gross profit / (loss)</b>	—	—	<b>3,679</b>	<b>12,064</b>	<b>7,071</b>	<b>6,088</b>	<b>28,902</b>	<b>1,177</b>	<b>(882)</b>		<b>29,197</b>
Administration expenses	(2,884)	(835)	609	(463)	(516)	(809)	(4,898)	—	—		(4,898)
Impairment of unsuccessful exploration and evaluation assets	(2,000)	—	(1,150)	—	—	(1,209)	(4,359)	—	1,150	5	(3,209)
Other income	—	—	1,424	89	—	21	1,534	(1,178)	—	A.iv	356
Profit on sale of fixed assets	—	—	—	2	—	—	2	—	—		2
<b>Operating profit / (loss)</b>	<b>(4,884)</b>	<b>(835)</b>	<b>4,562</b>	<b>11,692</b>	<b>6,555</b>	<b>4,091</b>	<b>21,181</b>	<b>(1)</b>	<b>268</b>		<b>21,448</b>
Income from subsidiary undertakings	—	—	—	—	—	11,386	11,386	—	(11,385)	7	1
Finance income	1,430	544	629	560	591	629	4,383	—	(458)	9	3,925
Finance costs	(856)	(431)	(546)	(726)	(218)	(508)	(3,285)	—	458	9	(2,827)
Share of net gain in associate	—	—	—	—	—	—	—	—	—		—
<b>Profit / (loss) before taxation</b>	<b>(4,310)</b>	<b>(722)</b>	<b>4,645</b>	<b>11,526</b>	<b>6,928</b>	<b>15,598</b>	<b>33,665</b>	<b>(1)</b>	<b>(11,117)</b>		<b>22,547</b>
Income tax	—	—	406	(7,146)	(5,980)	(2,922)	(15,642)	—	—		(15,642)
<b>Retained profit / (loss) for the financial year</b>	<b>(4,310)</b>	<b>(722)</b>	<b>5,051</b>	<b>4,380</b>	<b>948</b>	<b>12,676</b>	<b>18,023</b>	<b>(1)</b>	<b>(11,117)</b>		<b>6,905</b>

For the year ended 31 March 2010	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Weald Basin Ltd £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve Out Adjustments £'000	IFRS and Other Adjustments £'000	Notes	Unaudited Combined Income Statement £'000
Revenue	—	—	11,834	15,170	10,339	10,120	47,463	(3,953)	—	A.i	43,510
Cost of Sales:											
Depletion, depreciation and amortisation	—	—	(3,040)	(1,888)	(1,815)	(922)	(7,665)	1,808	(737)	A.ii / 3	(6,594)
Other costs of sales	—	—	(7,034)	(4,536)	(3,332)	(4,805)	(19,707)	2,459	—	A.iii	(17,248)
Total cost of sales	—	—	(10,074)	(6,424)	(5,147)	(5,727)	(27,372)	4,267	(737)		(23,842)
Gross profit / (loss)	—	—	1,760	8,746	5,192	4,393	20,091	314	(737)		19,668
Administration expenses	(1,351)	(3,430)	(623)	(390)	(330)	(836)	(6,960)	—	(207)	6	(7,167)
Impairment of unsuccessful exploration and evaluation assets	—	—	—	—	—	2,755	2,755	—	—		2,755
Other income	—	—	2,218	75	12	2	2,307	(1,373)	—	A.iv	934
Profit on sale of fixed assets	5	—	—	1	—	95	101	—	—		101
Operating profit / (loss)	(1,346)	(3,430)	3,355	8,432	4,874	6,409	18,294	(1,059)	(944)		16,291
Income from subsidiary undertakings	—	—	—	—	—	—	—	—	—		—
Finance income	1,159	584	181	467	481	512	3,384	—	(569)	9	2,815
Finance costs	(1,250)	(183)	(406)	(869)	(205)	(386)	(3,299)	—	569	9	(2,730)
Share of net gain in associate	—	—	—	—	—	—	—	—	415	10	415
Profit / (loss) before taxation	(1,437)	(3,029)	3,130	8,030	5,150	6,535	18,379	(1,059)	(529)		16,791
Income tax	242	120	(2,950)	(1,373)	(2,753)	(4,215)	(10,929)	—	(1,966)	13	(12,895)
Retained profit / (loss)for the financial year	(1,195)	(2,909)	180	6,657	2,397	2,320	7,450	(1,059)	(2,495)		3,896

For the year ended 31 March 2009	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Weald Basin Ltd £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve out Adjustments £'000	Other Adjustments £'000	IFRS Adjustments <sup>2</sup> £'000	Notes	Unaudited Combined Income Statement £'000
<b>Revenue</b>	—	—	2,120	5,396	1,071	3,483	12,070	(4,048)	—	39,053	A.i / 4.a	47,075
<b>Cost of Sales:</b>												
Depletion, depreciation and amortisation	—	—	(2,138)	(2,274)	(913)	(874)	(6,199)	1,432	(599)	—	A.ii / 3	(5,366)
Other costs of sales	—	—	(6,321)	(4,698)	(2,545)	(2,861)	(16,425)	3,097	—	(31,927)	A.iii / 4.b	(45,255)
<b>Total cost of sales</b>	—	—	(8,459)	(6,972)	(3,458)	(3,735)	(22,624)	4,529	(599)	(31,927)		(50,621)
<b>Gross profit / (loss)</b>	—	—	(6,339)	(1,576)	(2,387)	(252)	(10,554)	481	(599)	7,126		(3,546)
Administration expenses	(962)	(1,398)	(3,347)	(280)	(224)	(477)	(6,688)	—	—	—		(6,688)
Impairment of unsuccessful exploration and evaluation assets	—	—	—	—	—	(19,114)	(19,114)	—	—	—		(19,114)
Other income	—	—	2,029	71	1	11	2,112	(1,105)	—	—	A.iv	1,007
Profit on sale of fixed assets	(10)	—	—	—	—	—	(10)	—	—	—		(10)
<b>Operating profit / (loss)</b>	(972)	(1,398)	(7,657)	(1,785)	(2,610)	(19,832)	(34,254)	(624)	(599)	7,126		(28,351)
Income from subsidiary undertakings	4,091	—	—	—	—	—	4,091	—	(4,091)	—	8	—
Finance income	31,536	1,734	2	—	—	—	33,272	—	14,216	(47,175)	11 / 4.c	313
Finance costs	(40,542)	(7,800)	(1,570)	(4,215)	(2,736)	(3,069)	(59,932)	—	(14,216)	47,267	12 / 4.c	(26,881)
Share of net gain in associate	—	—	—	—	—	—	—	—	207	—	10	207
<b>Profit / (loss) before taxation</b>	(5,887)	(7,464)	(9,225)	(6,000)	(5,346)	(22,901)	(56,823)	(624)	(4,483)	7,218		(54,712)
Income tax	(1,981)	(174)	2,784	2,460	2,867	5,249	11,205	—	99	(2,781)	14 / 4.d	8,523
<b>Retained profit / (loss) for the financial year</b>	(7,868)	(7,638)	(6,441)	(3,540)	(2,479)	(17,652)	(45,618)	(624)	(4,384)	4,437		(46,189)

<sup>2</sup> For FY09 IFRS adjustments have been shown separately due to the significant amounts involved. In FY11 and FY10, the IFRS adjustments have been combined with the other adjustments, as all such items were relatively small.

**Target Group – reconciliation of Historical Unaudited Combined Balance Sheets and related adjustments**

For the year ended 31 March 2011	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Basin Ltd £'000	Star Energy Weald £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve Out Adjustments £'000	IFRS and Other Adjustments £'000	Notes	Unaudited Combined Balance Sheet £'000
<b>Non-current assets</b>												
Intangible assets	—	—	13,688	—	—	—	10	13,698	—	(1,298)	15	12,400
Property, plant & equipment	—	1,017	64,442	—	—	—	32,950	98,409	(25,815)	24,105	B.i / 2.a / 16	96,699
Investment in associate	—	978	—	—	—	—	—	978	—	510	10	1,488
Investments	257,003	—	—	—	—	—	—	257,003	(47,288)	(209,715)	D / 1.b	—
<b>Total non-current assets</b>	<b>257,003</b>	<b>1,995</b>	<b>78,130</b>	—	—	—	<b>32,960</b>	<b>370,088</b>	<b>(73,103)</b>	<b>(186,398)</b>		<b>110,587</b>
<b>Current assets</b>												
Inventories	—	—	272	—	—	—	294	566	(40)	(320)	B.ii / 1.a / 16	206
Trade and other receivables	45	8,737	4,950	—	—	—	3,887	17,619	(8,055)	—	B.ii / C	9,564
Related party debtors	—	2,328	—	—	—	—	—	2,328	—	49,431	1.c	51,759
Cash at bank and in hand	32,463	93	29	—	—	—	41	32,626	—	—		32,626
<b>Total current assets</b>	<b>32,508</b>	<b>11,158</b>	<b>5,251</b>	—	—	—	<b>4,222</b>	<b>53,139</b>	<b>(8,095)</b>	<b>49,111</b>		<b>94,155</b>
<b>TOTAL ASSETS</b>	<b>289,511</b>	<b>13,153</b>	<b>83,381</b>	—	—	—	<b>37,182</b>	<b>423,227</b>	<b>(81,198)</b>	<b>(137,287)</b>		<b>204,742</b>
<b>Current liabilities</b>												
Trade and other payables	(3,111)	4,059	(4,158)	—	—	—	(9,803)	(13,013)	322	(124)	B.ii / 18	(12,815)
Related party creditors	(2,328)	—	—	—	—	—	—	(2,328)	—	2,328	1.c	—
Borrowings	—	—	—	—	—	—	(82)	(82)	—	—		(82)
<b>Total current liabilities</b>	<b>(5,439)</b>	<b>4,059</b>	<b>(4,158)</b>	—	—	—	<b>(9,885)</b>	<b>(15,423)</b>	<b>322</b>	<b>2,204</b>		<b>(12,897)</b>
<b>Non-current liabilities</b>												
Borrowings	—	—	—	—	—	—	(51)	(51)	—	—		(51)
Loans from related parties	(136,636)	—	(47,854)	—	—	—	(4,700)	(189,190)	77,428	52,554	B.iv / 1.c	(59,208)
Deferred tax liabilities	—	(1)	(14,658)	—	—	—	(12,098)	(26,757)	—	—		(26,757)
Provisions	—	—	(4,648)	—	—	—	(7,356)	(12,004)	1,763	—	B.iii	(10,241)
<b>Total non-current liabilities</b>	<b>(136,636)</b>	<b>(1)</b>	<b>(67,160)</b>	—	—	—	<b>(24,205)</b>	<b>(228,002)</b>	<b>79,191</b>	<b>52,554</b>		<b>(96,257)</b>
<b>Net assets</b>	<b>147,436</b>	<b>17,211</b>	<b>12,063</b>	—	—	—	<b>3,092</b>	<b>179,802</b>	<b>(1,685)</b>	<b>(82,529)</b>		<b>95,588</b>
<b>Capital and reserves</b>												
Called up share capital	9,526	5,183	15,223	—	—	—	4,177	34,109	—	(24,583)	1.d	9,526
Share premium account	155,454	9,907	—	—	—	—	—	165,361	—	(9,907)	1.f	155,454
Merger reserve	—	—	—	—	—	—	—	—	—	(45,093)	1.g	(45,093)
Capital reserve	1,303	307	—	—	—	—	—	1,610	—	(1,135)	1.h	475
Retained profit / (deficit)	(18,847)	1,814	(3,160)	—	—	—	(1,085)	(21,278)	(1,685)	(1,811)	1.i	(24,774)
<b>Equity shareholders' funds</b>	<b>147,436</b>	<b>17,211</b>	<b>12,063</b>	—	—	—	<b>3,092</b>	<b>179,802</b>	<b>(1,685)</b>	<b>(82,529)</b>		<b>95,588</b>

For the year ended 31 March 2010	Star Energy Weald Basin Ltd			Star Energy (East Midlands) Ltd		Star Energy Oil UK Ltd		Star Energy Oil & Gas Ltd		Aggregation of UK GAAP Financial Statements		Carve Out Adjustments		IFRS and Other Adjustments		Notes	Unaudited Combined Balance Sheet £'000
	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Weald Basin Ltd £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve Out Adjustments £'000	IFRS and Other Adjustments £'000						
<b>Non-current assets</b>																	
Intangible assets	—	—	9,549	8	—	9	—	9,566	—	—	—	—	—	—	—	—	9,566
Property, plant & equipment	—	—	41,282	18,858	21,493	12,505	—	95,207	—	(25,047)	24,948	—	—	—	—	B.i / 2.a /	95,108
Investment in associate	—	100	—	—	—	—	—	100	—	—	522	—	—	—	—	16	622
Investments	108,878	—	—	—	—	—	—	108,878	—	(49)	(108,829)	—	—	—	—	10	—
<b>Total non-current assets</b>	<b>108,878</b>	<b>1,169</b>	<b>50,831</b>	<b>18,866</b>	<b>21,493</b>	<b>12,514</b>	<b>21,493</b>	<b>213,751</b>	<b>(25,096)</b>	<b>(83,359)</b>	<b>(105,296)</b>	<b>(83,359)</b>	<b>(25,096)</b>	<b>(83,359)</b>	<b>(105,296)</b>	<b>D / 1.b</b>	<b>105,296</b>
<b>Current assets</b>																	
Inventories	—	—	185	230	—	109	—	524	—	—	(281)	—	—	—	—	16	243
Trade and other receivables	1,315	9,724	2,627	212	1,236	2,613	1,236	17,727	—	(7,500)	2,252	—	—	—	—	C/17	12,479
Related party debtors	203,468	27,763	3,421	20,096	4,187	3,213	4,187	262,148	—	—	(157,402)	—	—	—	—	1.c	104,746
Cash at bank and in hand	22	15,285	181	42	39	13	39	15,582	—	—	—	—	—	—	—	—	15,582
<b>Total current assets</b>	<b>204,805</b>	<b>52,772</b>	<b>6,414</b>	<b>20,580</b>	<b>5,462</b>	<b>5,948</b>	<b>5,462</b>	<b>295,981</b>	<b>(7,500)</b>	<b>(155,431)</b>	<b>(133,050)</b>	<b>(7,500)</b>	<b>(155,431)</b>	<b>(133,050)</b>	<b>(133,050)</b>	<b>—</b>	<b>133,050</b>
<b>TOTAL ASSETS</b>	<b>313,683</b>	<b>53,941</b>	<b>57,245</b>	<b>39,446</b>	<b>26,955</b>	<b>18,462</b>	<b>26,955</b>	<b>509,732</b>	<b>(32,596)</b>	<b>(238,790)</b>	<b>(238,790)</b>	<b>(32,596)</b>	<b>(238,790)</b>	<b>(238,790)</b>	<b>(238,790)</b>	<b>—</b>	<b>238,790</b>
<b>Current liabilities</b>																	
Trade and other payables	(2,090)	(51)	(1,687)	5	(764)	(348)	(764)	(4,935)	—	—	(2,369)	—	—	—	—	19	(7,304)
Related party creditors	(16,028)	(35,956)	(58,682)	(3,030)	(1,407)	(19,470)	(1,407)	(134,573)	—	—	134,574	—	—	—	—	1.c	1
Borrowings	—	—	—	—	—	(77)	—	(77)	—	—	—	—	—	—	—	—	(77)
<b>Total current liabilities</b>	<b>(18,118)</b>	<b>(36,007)</b>	<b>(60,369)</b>	<b>(3,025)</b>	<b>(2,171)</b>	<b>(19,895)</b>	<b>(2,171)</b>	<b>(139,585)</b>	<b>(139,585)</b>	<b>(132,205)</b>	<b>(132,205)</b>	<b>(132,205)</b>	<b>(132,205)</b>	<b>(132,205)</b>	<b>(132,205)</b>	<b>—</b>	<b>(7,380)</b>
<b>Non-current liabilities</b>																	
Borrowings	—	—	—	—	—	(133)	—	(133)	—	—	—	—	—	—	—	—	(133)
Loans from related parties	(143,818)	—	—	(22,000)	(3,300)	(4,700)	(3,300)	(173,818)	30,067	30,067	30,000	—	—	—	—	B.iv / 1.c	(113,751)
Deferred tax liabilities	—	(1)	(1,401)	(4,788)	(9,220)	(4,267)	(9,220)	(19,677)	—	—	—	—	—	—	—	—	(19,677)
Provisions	—	—	(3,684)	(2,263)	(435)	(3,228)	(435)	(9,610)	847	847	—	—	—	—	—	B.iii	(8,763)
<b>Total non-current liabilities</b>	<b>(143,818)</b>	<b>(1)</b>	<b>(5,085)</b>	<b>(29,051)</b>	<b>(12,955)</b>	<b>(12,328)</b>	<b>(12,955)</b>	<b>(203,238)</b>	<b>30,914</b>	<b>30,914</b>	<b>30,000</b>	<b>(142,324)</b>	<b>(142,324)</b>	<b>(142,324)</b>	<b>(142,324)</b>	<b>—</b>	<b>(142,324)</b>
<b>Net assets</b>	<b>151,747</b>	<b>17,933</b>	<b>(8,209)</b>	<b>7,370</b>	<b>11,829</b>	<b>(13,761)</b>	<b>11,829</b>	<b>166,909</b>	<b>(1,682)</b>	<b>(1,682)</b>	<b>(76,585)</b>	<b>(76,585)</b>	<b>(1,682)</b>	<b>(76,585)</b>	<b>(76,585)</b>	<b>—</b>	<b>88,642</b>
<b>Capital and reserves</b>																	
Called up share capital	9,526	5,183	1	—	8,995	—	8,995	23,705	—	—	(14,182)	—	—	—	—	1.d	9,523
Share premium account	155,454	9,907	—	—	667	—	667	166,028	—	—	(10,573)	—	—	—	—	1.f	155,455
Merger reserve	—	—	—	—	—	—	—	—	—	—	(45,093)	—	—	—	—	1.g	(45,093)
Capital reserve	1,303	307	—	—	88	—	88	1,698	—	—	(1,223)	—	—	—	—	1.h	475
Retained profit / (deficit)	(14,536)	2,536	(8,210)	7,370	2,079	(13,761)	2,079	(24,522)	(1,682)	(1,682)	(5,514)	—	—	—	—	1.i	(31,718)
<b>Equity shareholders' funds</b>	<b>151,747</b>	<b>17,933</b>	<b>(8,209)</b>	<b>7,370</b>	<b>11,829</b>	<b>(13,761)</b>	<b>11,829</b>	<b>166,909</b>	<b>(1,682)</b>	<b>(1,682)</b>	<b>(76,585)</b>	<b>(76,585)</b>	<b>(1,682)</b>	<b>(76,585)</b>	<b>(76,585)</b>	<b>—</b>	<b>88,642</b>

For the year ended 31 March 2009	Star Energy Group Ltd £'000	Star Energy Ltd £'000	Star Energy Weald Basin Ltd £'000	Star Energy (East Midlands) Ltd £'000	Star Energy Oil UK Ltd £'000	Star Energy Oil & Gas Ltd £'000	Aggregation of UK GAAP Financial Statements £'000	Carve out Adjustments £'000	Other Adjustments £'000	IFRS Adjustments <sup>3</sup> £'000	Notes	Unaudited Combined Balance Sheet £'000
<b>Non-current assets</b>												
Intangible assets	—	—	8,503	8	—	2	8,513	—	—	—		8,513
Property, plant & equipment	—	786	32,515	19,970	22,628	11,306	87,205	(26,463)	25,832	—	B.i/2.a/16	86,574
Investment in associate	—	100	—	—	—	—	100	—	107	—	10	207
Investments	108,829	380	—	—	—	199	109,408	(49)	(108,829)	—	D i/1.b	530
<b>Total non-current assets</b>	<b>108,829</b>	<b>1,266</b>	<b>41,018</b>	<b>19,978</b>	<b>22,628</b>	<b>11,507</b>	<b>205,226</b>	<b>(26,512)</b>	<b>(82,890)</b>	<b>—</b>		<b>95,824</b>
<b>Current assets</b>												
Inventories	—	—	610	265	—	69	944	—	(279)	—	16	665
Trade and other receivables	1,584	9,530	789	526	1,484	2,208	16,121	(7,500)	2,344	—	C/17	10,965
Related party debtors	181,554	99,079	8,361	39,096	14,796	31,042	373,928	—	(268,615)	—	1.c	105,313
Cash at bank and in hand	106	1,391	(363)	19	10	8	1,171	—	—	—		1,171
<b>Total current assets</b>	<b>183,244</b>	<b>110,000</b>	<b>9,397</b>	<b>39,906</b>	<b>16,290</b>	<b>33,327</b>	<b>392,164</b>	<b>(7,500)</b>	<b>(266,550)</b>	<b>—</b>		<b>118,114</b>
<b>TOTAL ASSETS</b>	<b>292,073</b>	<b>111,266</b>	<b>50,415</b>	<b>59,884</b>	<b>38,918</b>	<b>44,834</b>	<b>597,390</b>	<b>(34,012)</b>	<b>(349,440)</b>	<b>—</b>		<b>213,938</b>
<b>Current liabilities</b>												
Trade and other payables	(1,936)	366	(2,022)	888	(997)	(6,365)	(10,066)	—	(2,642)	—	20	(12,708)
Related party creditors	—	(91,000)	(57,496)	(31,661)	(18,396)	(47,232)	(245,785)	—	245,785	—	1.c	—
Borrowings	—	—	—	—	—	(84)	(84)	—	—	—		(84)
<b>Total current liabilities</b>	<b>(1,936)</b>	<b>(90,634)</b>	<b>(59,518)</b>	<b>(30,773)</b>	<b>(19,393)</b>	<b>(53,681)</b>	<b>(255,935)</b>	<b>—</b>	<b>243,143</b>	<b>—</b>		<b>(12,792)</b>
<b>Non-current liabilities</b>												
Borrowings	—	—	—	—	—	(210)	(210)	—	—	—		(210)
Loans from related parties	(136,942)	—	—	(22,000)	(3,300)	(4,700)	(166,942)	32,541	30,000	—	B.iv/1.c	(104,401)
Deferred tax liabilities	(255)	184	1,820	(4,256)	(6,398)	(206)	(9,111)	—	—	2,306	4.e	(6,805)
Provisions	—	—	(1,109)	(2,142)	(396)	(2,116)	(5,763)	847	—	—	B.iii	(4,916)
<b>Total non-current liabilities</b>	<b>(137,197)</b>	<b>184</b>	<b>711</b>	<b>(28,398)</b>	<b>(10,094)</b>	<b>(7,232)</b>	<b>(182,026)</b>	<b>33,388</b>	<b>30,000</b>	<b>2,306</b>		<b>(116,332)</b>
<b>Net assets</b>	<b>152,940</b>	<b>20,816</b>	<b>(8,392)</b>	<b>713</b>	<b>9,431</b>	<b>(16,079)</b>	<b>159,429</b>	<b>(624)</b>	<b>(76,297)</b>	<b>2,306</b>		<b>84,814</b>
<b>Capital and reserves</b>												
Called up share capital	9,526	5,183	1	—	8,995	—	23,705	—	(14,182)	—	1.d	9,523
Share premium account	155,454	9,907	—	—	667	—	166,028	—	(10,573)	—	1.f	155,455
Merger reserve	—	—	—	—	—	—	—	—	(45,093)	—	1.g	(45,093)
Capital reserve	1,303	307	—	—	88	—	1,698	—	(1,223)	—	1.h	475
Retained profit / (deficit)	(13,343)	5,419	(8,393)	713	(319)	(16,079)	(32,002)	(624)	(5,226)	2,306	1.i	(35,546)
<b>Equity shareholders' funds</b>	<b>152,940</b>	<b>20,816</b>	<b>(8,392)</b>	<b>713</b>	<b>9,431</b>	<b>(16,079)</b>	<b>159,429</b>	<b>(624)</b>	<b>(76,297)</b>	<b>2,306</b>		<b>84,814</b>

<sup>3</sup> For FY09 IFRS adjustments have been shown separately due to the significant amounts involved. In FY11 and FY10, the IFRS adjustments have been combined with the other adjustments, as all such items were relatively small.



### **Notes to the Carve Out Adjustments**

Within Star Energy Weald Basin Ltd the Humbly Grove and Herriard oil producing properties are also used for gas storage. These assets will be transferred out of Target Group and into one of the Star companies that is not part of the transaction. The carve out adjustments are set out below.

- A. In the income statements the eliminations that relate to the Humbly Grove and Herriard assets are as follows:
- i. Revenues of £3.0 million, £4.0 million and £4.0 million for FY11, FY10 and FY09 respectively.
  - ii. Depreciation and depletion of £1.4 million, £1.8 million and £1.4 million for FY11, FY10 and FY09 respectively.
  - iii. Cost of sales of £2.7 million, £2.5 million and £3.1 million for FY11, FY10 and FY09 respectively.
  - iv. Other income within Star Energy Weald Basin Ltd which relates to turbine and well rental of £1.2 million, £1.4 million and £1.1 million for FY11, FY10 and FY09 respectively.

There have been no eliminations for administration expenses as these have not been deemed to be material.

- B. In the balance sheets the eliminations that relate to these assets are:
- i. Transfer of the Humbly Grove and Herriard assets and the related oil production licence from tangible fixed assets (property, plant and equipment) from the Star Energy Weald Basin Ltd balance sheet. This amounts to £25.8 million, £25.0 million and £26.5 million for FY11, FY10 and FY09 respectively.
  - ii. Working capital of £40,000 of inventory, trade receivables of £0.6 million and trade payables of £0.3 million in FY11 only.
  - iii. Transfer of the related decommissioning provisions of £1.8 million, £0.8 million and £0.8 million for FY11, FY10 and FY09 respectively.
  - iv. The carve out of these assets, their related cumulative profits, combined with the adjustments in C and D below, result in net carve out adjustments of £77.4 million, £30.1 million and £32.5 million for FY11, FY10 and FY09 respectively that have been made through the non-current related party loan account.
- C. Star Energy Ltd currently has a wholesale deposit of £15.0 million with a London branch of an Icelandic financial institution as part of Star Group's normal treasury operations. This amount has been written down to £7.5 million. As part of the transaction this deposit of £7.5 million will be carved out of the Target Group through loans from related parties. See B.iv above.
- D. Star Energy Group Ltd is currently the owner of five subsidiary companies that operate in the gas storage market, and the ownership of which will remain with Petronas Group. These investments, with book value of £47.3 million in FY11, will be carved out of Star Energy Group Ltd in return for a reduction in its parent company loan. Similar entries for FY10 and FY09 have been made, although the related book value of the investments were only £0.1 million owing to a capitalisation of intercompany debt that took place in FY11. These eliminations have been netted off against loans from related parties. See B.iv above.

### **Notes to the IFRS and Other Adjustments**

1. Star Energy Group Ltd records the investments in its subsidiaries at cost in accordance with its accounting policy, which is consistent with that of IGas. However on consolidation the individual financial statements of the entities included in the Target Group are combined with those of their parent, with the cost of investments in these entities being eliminated, and intercompany transactions, balances between Target Group entities and share capital and reserves of these entities being eliminated. A number of adjustments have been made as part of the combination of the Target Group which are as follows:
- a. Certain oil inventory balances held within Star Energy Weald Basin Ltd at 31 March 2011 that have been purchased from other Star entities include an intercompany mark-up of £0.1 million. Therefore this adjustment between inventory and cost of sales is required to eliminate this intercompany mark-up upon combination of the Target Group.



- b. The adjustment for FY11 of £209.7 million relates to the elimination of the cost of investments in entities included in the Target Group of £105.4 million and to the elimination of £104.3 million of intercompany loans receivable included in investments. The adjustment for FY10 and FY09 of £108.8 million relates to the elimination of the cost of investments on the combination of the Target Group.
- c. These items relate mainly to the elimination of inter-Target Group debtors and creditors for FY11, FY10 and FY09, which results in the outstanding balances with related party debtors and creditors, being the Star Group companies that do not form part of the Target Group and their ultimate parent, and are as follows:
  - i. For FY11, the adjustments to related party debtors (debit of £49.4 million), related party creditors (debit of £2.3 million) and loans from related parties (debit of £52.6 million net of a debit of £104.3 million set out in 1.d.i below) relate to all intercompany receivable and payable balances between the individual legal entities of the Target Group that are eliminated on combination. The resulting related party debtor of £51.8 million reflects the amounts due from all the non Target Group entities that form part of the Star Group. In addition there is a non-current liability balance of £59.2 million (inclusive of carve out adjustments of £77.4 million) which represents a loan from Petronas Group.
  - ii. For FY10, the adjustments to related party debtors (credit of £157.4 million, net of a debit of £7.2 million set out in 1.d.ii below), related party creditors (debit of £134.6 million) and loans from related parties (debit of £30.0 million) relate to all intercompany receivable and payable balances between the individual legal entities of the Target Group that are eliminated on combination. The resulting related party debtors of £104.7 million reflect the amounts due from all the non Target Group entities that form part of the Star Group. In addition there is a non-current liability balance of £113.8 million (inclusive of carve out adjustments of £30.1 million) which represents a loan from Petronas Group.
  - iii. For FY09, the adjustments to related party debtors (credit of £268.6 million net of a debit of £7.2 million set out in 1.d.ii below), related party creditors (debit of £245.8 million) and loans from related parties (debit of £30.0 million) relate to all intercompany receivable and payable balances between the individual legal entities of the Target Group that are eliminated on combination. The resulting current related party debtors of £105.3 million reflect the amounts due from all the non Target Group entities that form part of the Star Group. In addition there is a non-current liability balance of £104.4 million (inclusive of carve out adjustments of £32.5 million) which represents a loan from Petronas Group.
- d. In addition to the elimination of inter-Target Group debtors and creditors for FY11, FY10 and FY09, there were other adjustments that had an impact on the elimination adjustments in 1.c above. These were:
  - i. For FY11, an elimination of £104.3 million of intercompany loans receivable that was capitalised as an investment.
  - ii. For FY10 and FY09, an adjustment of £7.2 million for an investment in gas storage business' interests in the Waalwijk production licence.
- e. This adjustment of £24.6 million, £14.2 million and £14.2 million for FY11, FY10 and FY09 respectively eliminates the share capital of the entities that form part of the Target Group upon combination. The remaining balance on share capital relates to the share capital of Star Energy Group Ltd.
- f. This adjustment of £9.9 million, £10.6 million and £10.6 million for FY11, FY10 and FY09 respectively eliminates the share premium account of the subsidiary Star Energy Ltd upon combination. The residual balance on the share premium account of £155.5 million represents the amounts received in excess of the nominal value of the ordinary shares issued by Star Energy Group Ltd.
- g. The adjustment of £45.1 million relates to the creation of a merger reserve upon the combination of the Target Group. The balance of the merger reserve represents the excess

of the fair value of the consideration paid over the nominal value of the ordinary shares issued in an acquisition made by the issue of shares and dates back to the incorporation of Star Energy Group Ltd in May 2004 when it acquired all the issued share capital of Star Energy Ltd by way of a share-for-share exchange which was accounted for through merger accounting.

- h. Some of the Target Group individual legal entities created capital reserves in relation to share based payments in the group company. The adjustment of £1.1 million, £1.2 million and £1.2 million for FY11, FY10 and FY09 respectively eliminates these reserves upon combination.
  - i. The adjustments to retained profits and losses and the cumulative effects of IFRS and other adjustments of £1.8 million, £5.5 million and £2.9 million for FY11, FY10 and FY09 respectively relate to the elimination of pre-acquisition retained reserves upon combination.
2. These adjustments to fixed assets relate to the acquisition of the former Pentex group of companies in August 2005. The investments carried by Star Energy Group Ltd are carried at historical cost in Star Energy Group Ltd's stand alone financial statements, but upon combination the assets are accounted for at fair value at the time of acquisition, net of cumulative depreciation, which gives rise to an adjustment to uplift the value of property, plant & equipment (tangible oil and gas assets) from the values as stated in the individual financial statements. The adjustments are as follows:
    - a. An increase in the net book value of property, plant & equipment of £23.9 million, £24.7 million and £25.6 million for FY11, FY10 and FY09 respectively.
    - b. In addition there is a further current year depletion charge of £0.8 million, £0.9 million and £0.8 million for FY11, FY10 and FY09 respectively to the uplift in relation to these assets accounted for upon combination.
  3. The adjustments to depletion, depreciation and amortisation of £0.7 million and £0.6 million for FY10 and FY09 respectively relate to the net impact of three separate adjustments, which are as follows:
    - a. An additional depletion charge of £0.9 million and £0.8 million for FY10 and FY09 respectively as explained in 2.b above.
    - b. In FY10, a reclassification to depletion, depreciation and amortisation of an oil and gas property asset write-off of £0.1 million from administration expenses.
    - c. In FY09 a depletion adjustment of £0.2 million for Star Energy Weald Basin Ltd which was reflected in the Group consolidation in the prior year (FY08), but not through the financial statements of the individual legal entity and thus is adjusted upon combination. There is also a related £0.1 million deferred tax adjustment in relation to this item.
  4. In the years prior to FY09, Star Group entered into a number of derivative contracts (for crude oil and for foreign exchange). In FY08 the last of these contracts were left to expire and thus were not rolled over. The effects these were to some extent carried forward to FY09 in accordance with IFRS39. This item gives rise to four separate adjustments, with a net impact of £4.4 million on retained profit for the year, which are as follows:
    - a. A reclassification of charges associated with settled forward derivatives from revenue of £39.1 million.
    - b. An associated adjustment of £31.9 million to cost of sales, giving a net impact to gross profit of £7.2 million
    - c. Reclassification between finance income of £47.2 million and finance costs of £47.3 million with a debit impact to finance costs of £0.1 million
    - d. A deferred tax charge of £2.8 million related to c above; and
    - e. An adjustment to the deferred tax provision in the balance sheet of £2.3 million.
  5. As a result of realigning the accounting policy for intangible exploration and evaluation assets to that used by IGas, an adjustment is required to write back an impairment taken as at 31 March 2011. This related to a partial impairment of £1.15 million of a single well within one of the Target Group legal entities. Under the IGas accounting policy such a partial impairment would not have been made and therefore this impairment has been reversed.

6. The charge to administration expenses of £0.2 million in FY10 relates to the combined impact of two separate adjustments, which are as follows:
  - a. The cost of holiday accruals for the year of £0.1 million. See 18 below.
  - b. The reclassification to depletion, depreciation and amortisation of an oil and gas property asset write off of £0.1 million as explained in 3.b above.
7. As part of a Star Group restructuring, Star Energy Oil & Gas Ltd acquired 100% of the issued share capital of Star Energy (East Midlands) Ltd from its parent, Star Energy Group Ltd, on 31 March 2011 by issuing 364,705 £1 shares in consideration. Immediately following this, certain assets, liabilities and their related trade of Star Energy (East Midlands) Ltd were transferred to Star Energy Oil & Gas Ltd. The net assets transferred had a value of £11.75 million, with the discount on the acquisition being recognised as a dividend from Star Energy (East Midlands) Ltd in the financial statements of Star Energy Oil & Gas Ltd. The adjustment of £11.4 million to income from subsidiary undertakings in FY11 relates to the elimination of this dividend on the combination of the Target Group.
8. As part of an exercise to liquidate a number of dormant companies, Star Energy Group Ltd was required write down the cost of investments in the relevant companies. The adjustment of £4.1 million to income from subsidiary undertakings in FY09 relates to the elimination of this write down on the combination of the Target Group.
9. Adjustments to finance income and finance costs of £0.5 million and £0.6 million in FY11 and FY10 respectively relate to the elimination of intercompany interest received and interest charged on a loan that was in place between Star Energy (East Midlands) Ltd and Star Energy Ltd.
10. The Target Group has an investment in an associate, Larchford Ltd, which is recorded at cost in the individual financial statements of Star Energy Ltd in accordance with group's accounting policy. However upon combination the assets and liabilities of the associate are incorporated in the Star Group accounts using the equity method of accounting. Interests in associates are carried in the balance sheet at cost as adjusted by post-acquisition changes in the Target Group's share of the net assets of the associate. Therefore there are two combination adjustments in relation to this item, as follows:
  - a. An adjustment to the income statement in relation to the recognition of profits for the year from the investment in an associate of £0.4 million and £0.2 million in FY10 and FY09 respectively.
  - b. An adjustment in the balance sheet to increase the carrying value of the investment from its cost by £0.5 million in FY11 and FY10 respectively and £0.1 million in FY09 and is in relation to the share of gains in the value assets and liabilities of the associate, from the time of the initial investment to the respective year end.
11. The adjustment of £14.2 million to finance income in FY09 relates to the net impact of three separate adjustments, which are as follows:
  - a. The reclassification of £7.5 million of derivative contract termination fees from finance income to finance costs.
  - b. The reclassification of £6.7 million on the loss on revaluation of the Petronas parent company loan from finance income to finance costs.
12. The adjustment of £14.2 million to finance costs in FY09 relates to the net impact of three separate adjustments, which are as follows:
  - a. The reclassification of £7.5 million of derivative contract termination fees to finance costs from finance income.
  - b. The reclassification of £6.7 million on the loss on revaluation of the Petronas parent company loan to finance costs from finance income.
13. The adjustment to FY10 tax expense of £2.0 million relates to the combined impact of two separate adjustments, which are as follows:
  - a. An adjustment of £1.8 million correcting a tax provision for an IFRS hedging adjustment made on consolidation in a prior financial period.

- b. An adjustment of £0.2 million relating to the correction tax consolidation adjustments for prior periods.
- 14. The other adjustment of £0.1 million to income tax expenses in FY09 relates to the net impact of two separate adjustments, which are as follows:
  - a. An amount of £0.3 million relates to the reversal of a prior year difference arising on deferred tax within Star Energy Group Ltd on the sale of a Group subsidiary.
  - b. An adjustment of £0.1 million relating to the deferred tax on the depletion adjustment in Star Energy Weald Basin Ltd as mentioned in 3.c above.
- 15. The adjustment of £1.3 million to intangible assets in FY11 relates to the net impact two separate adjustments, which are as follows:
  - a. As part of a Star Group restructuring, Star Energy Weald Basin Limited acquired 100% of the issued share capital of Star Energy Oil UK Ltd from its parent, Star Energy Group Ltd, on 31 March 2011 by issuing 150,222,205 10p shares in consideration. Immediately following this, certain assets, liabilities and the related trade of Star Energy Oil UK Ltd were transferred to Star Energy Weald Basin Ltd. The consideration was settled via the inter-company account. The difference between the book value of the assets and liabilities acquired from Star Energy Oil UK Ltd and the company's investment in Star Energy Group Ltd of £2.4 million was recognised as goodwill. Therefore this adjustment represents the elimination on combination of goodwill created from this transaction.
  - b. An adjustment to reverse a partial impairment of £1.15 million, as noted in 5 above.
- 16. IGas capitalises consumables on drilling sites upon purchase. The drilling material balances of £0.2 million in FY11 and of £0.3 million in both of FY10 and FY09 that are held under inventory have been reclassified to property, plant & equipment.
- 17. The adjustment of £2.3 million to trade and other receivables in both FY10 and FY09 relates to a reclassification of a current tax debtor from trade and other payables. See 19.a below.
- 18. The adjustment of £0.1 million to trade and other payables in FY11 is for holiday accruals for leave earned but not taken as per IAS19, which were not reflected under UK GAAP in the individual company statutory accounts. Similar amounts of £0.1 million were also accrued for in FY10 and FY09 (see 19.b and 20.c below)
- 19. The adjustment of £2.4 million to trade and other payables in FY10 relates to the net impact of two separate adjustments, which are as follows:
  - a. A reclassification of a current tax debtor balance of £2.3 million to trade and other receivables. See 17 above.
  - b. Holiday accruals of £0.1 million. See 18 above.
- 20. The other adjustment of £2.6 million to trade and other payables in FY09 relates to the net impact of four separate adjustments, which are as follows:
  - a. A reclassification of a current tax debtor balance of £2.3 million to trade and other receivables.
  - b. An adjustment of £0.3 million to trade and other creditors that relates to an adjustment to the current tax liability upon combination of the Target Group entities.
  - c. Holiday accruals of £0.1 million. See 18 above.

## PART B

### AUDITED FINANCIAL INFORMATION ON STAR AND STAR SUBSIDIARIES

Audited annual accounts for each of the Companies in the Star Group, for each of the three years ended 31 March 2011, 2010 and 2009 are accessible on IGas Energy plc's website (see: <http://www.igasplc.com/>) (the "**Website**").

The individual links to the Website for each of the audited annual accounts for each of the Companies in the Star Group are set out in the table below:

<u>Company</u>	<u>Year End</u>	<u>Link to Website</u>
Star Energy Group Limited	2008	<a href="http://www.igasplc.com/uploads/SEG0809">http://www.igasplc.com/uploads/SEG0809</a>
	2009	<a href="http://www.igasplc.com/uploads/SEG0910">http://www.igasplc.com/uploads/SEG0910</a>
	2010	<a href="http://www.igasplc.com/uploads/SEG1011">http://www.igasplc.com/uploads/SEG1011</a>
Star Energy Limited	2008	<a href="http://www.igasplc.com/uploads/SEL0809">http://www.igasplc.com/uploads/SEL0809</a>
	2009	<a href="http://www.igasplc.com/uploads/SEL0910">http://www.igasplc.com/uploads/SEL0910</a>
	2010	<a href="http://www.igasplc.com/uploads/SEL1011">http://www.igasplc.com/uploads/SEL1011</a>
Star Energy Weald Basin Limited	2008	<a href="http://www.igasplc.com/uploads/SEW0809">http://www.igasplc.com/uploads/SEW0809</a>
	2009	<a href="http://www.igasplc.com/uploads/SEW0910">http://www.igasplc.com/uploads/SEW0910</a>
	2010	<a href="http://www.igasplc.com/uploads/SEW1011">http://www.igasplc.com/uploads/SEW1011</a>
Star Energy Oil UK Limited	2008	<a href="http://www.igasplc.com/uploads/OUK0809">http://www.igasplc.com/uploads/OUK0809</a>
	2009	<a href="http://www.igasplc.com/uploads/OUK0910">http://www.igasplc.com/uploads/OUK0910</a>
	2010	<a href="http://www.igasplc.com/uploads/OUK1011">http://www.igasplc.com/uploads/OUK1011</a>
Star Energy (East Midlands) Limited	2008	<a href="http://www.igasplc.com/uploads/EML0809">http://www.igasplc.com/uploads/EML0809</a>
	2009	<a href="http://www.igasplc.com/uploads/EML0910">http://www.igasplc.com/uploads/EML0910</a>
	2010	<a href="http://www.igasplc.com/uploads/EML1011">http://www.igasplc.com/uploads/EML1011</a>
Star Energy Oil and Gas Limited	2008	<a href="http://www.igasplc.com/uploads/OGL0809">http://www.igasplc.com/uploads/OGL0809</a>
	2009	<a href="http://www.igasplc.com/uploads/OGL0910">http://www.igasplc.com/uploads/OGL0910</a>
	2010	<a href="http://www.igasplc.com/uploads/OGL1011">http://www.igasplc.com/uploads/OGL1011</a>
Larchford Limited	2008	<a href="http://www.igasplc.com/uploads/LL2008">http://www.igasplc.com/uploads/LL2008</a>
	2009	<a href="http://www.igasplc.com/uploads/LL2009">http://www.igasplc.com/uploads/LL2009</a>
	2010	<a href="http://www.igasplc.com/uploads/LL2010">http://www.igasplc.com/uploads/LL2010</a>

## PART 7

### TAXATION

#### 1. UK taxation

The following statements are intended as a general guide only to the position under current UK taxation legislation and HMRC practice as at the date of this document. They apply only to qualifying shareholders who are resident, or in the case of individuals, ordinarily resident for UK tax purposes in (and only in) the UK (except insofar as express reference is made to the treatment of non-UK residents), who hold their Ordinary Shares as an investment and who are the absolute beneficial owners of them. They do not apply to certain types of Shareholders, such as insurance companies, collective investment schemes, dealers in securities and Shareholders who have (or are deemed to have) acquired their Ordinary Shares by reason of or in connection with an office or employment. They relate only to certain limited aspects of the taxation treatment of Shareholders.

Special tax provisions may apply to Shareholders who have acquired or who acquire their Ordinary Shares under the Share Schemes.

Any person who is in any doubt about his/her own tax position, or who is resident in or subject to tax in a jurisdiction other than the UK, should consult an appropriate independent professional adviser without delay.

#### 1.1 Taxation of income

##### (a) *UK Resident Shareholders*

###### *Individuals*

UK resident individual Shareholders who receive a dividend from the Company will generally be entitled to a tax credit, which can be set off against the individual's income tax liability on the dividend payment. The rate of tax credit on dividends paid by the company will be 10 per cent. of the total of the dividend payment and the tax credit (the "gross dividend"), or one-ninth of the dividend payment.

UK resident individual Shareholders will generally be taxable on the gross dividend, which will be regarded as the top slice of the Shareholder's income. UK resident individual Shareholders who are not liable to income tax in respect of the gross dividend will generally not be entitled to reclaim any part of the tax credit.

In the case of a UK resident individual Shareholder who is not liable to income tax at the higher rates (taking account of the gross dividend he or she receives), the tax credit will satisfy in full such Shareholder's liability to income tax. To the extent that a UK resident individual Shareholder's income (including the gross dividend) is subject to 40 per cent. income tax, such Shareholders will be subject to income tax on the gross dividend at the dividend income upper rate of 32.5 per cent. but will be able to set the tax credit against this liability. This results in an effective tax rate of 25 per cent. On the net dividend, UK shareholders receiving dividends within the 50 per cent. band will be subject to an income tax rate of 42.5 per cent. An individual Shareholder who is liable to income tax at the additional rate (currently 50%) will be taxed on the gross dividend at 42.5 per cent. but will be able to set the tax credit against this liability. This results in an effective tax rate of 36.1 per cent. of the net dividend.

###### *Companies*

A corporate Shareholder resident in the UK (for tax purposes) should generally not be subject to corporation tax or income tax on dividend payments received from the Company. Corporate Shareholders will not, however, be able to claim repayment of tax credits attaching to the dividend payment.

###### *Trustees*

Accumulated or discretionary income arising to the trustees of a settlement (other than under a trust established for charitable purposes only) is taxed at either the trust rate or dividend trust rate. The trust rate is 50 per cent.; and the dividend trust rate is 42.5 per cent.



(b) **Non-residents**

Non-UK resident shareholders holding their shares directly should not be liable to UK income tax on dividends received from the Company. In general, the right of non-UK resident Shareholders to reclaim tax credits attaching to dividend payments by the Company will depend upon the existence and the terms of an applicable double tax treaty between their jurisdiction of residence and the UK. In most cases, the amount of tax credit that can be claimed by non-UK resident Shareholders from HMRC will be nil. They may also be liable to tax on the dividend income under the tax law of their jurisdiction of residence. Non-UK resident Shareholders should consult their own tax advisers in respect of their liabilities on dividend payments, whether they are entitled to claim any part of the tax credit and, if so, the procedure for doing so.

## 1.2 Taxation of capital gains

(a) **UK resident Shareholders**

A disposal of Ordinary Shares by a Shareholder may, depending on the Shareholder's circumstances, and subject to any available exemption or relief, give rise to a chargeable gain or an allowable loss for the purposes of UK taxation of chargeable gains.

Gains on disposals of Ordinary Shares by individual Shareholders resident in the UK are taxed at 18 per cent. or 28 per cent. depending on the individual's total taxable income and gains subject to certain reliefs and exemptions. For trustees of UK settlements, gains are taxed at 28 per cent. In cases where individual Shareholders resident in the UK and trustees qualify for entrepreneurs' relief the rate is 10 per cent. For UK corporates any gain would be chargeable at 26 per cent. Indexation may apply to reduce any such gain (although indexation is no longer available to individuals and trustees).

The chargeable gain on the disposal of Ordinary Shares will be calculated by reference to the sale proceeds (less allowable costs of sale) and the cost of the acquisition of the Ordinary Shares (this is usually the price paid, plus allowable expenses of the purchase, but may differ for Ordinary Shares acquired by reason of employment or under a share incentive scheme). Where Ordinary Shares have been acquired on different dates, specific rules will apply to determine which Ordinary Shares are treated as being sold for capital gains tax purposes.

The main reliefs from capital gains tax available to an individual (although there may be others) which are likely to assist in reducing a potential liability to capital gains tax are:

- (i) Annual exempt amount: Capital gains tax will only be payable if an individual who has capital gains from all sources in the tax year concerned exceeding the annual exempt amount (£10,600 for 2011/2012). The annual exempt amount is available for each tax year, but unused amounts cannot be carried forward to reduce gains made in subsequent tax years.
- (ii) Capital losses: Any gain made on a disposal may be offset by capital losses made on other disposals in the same tax year or brought forward from earlier years in which they have not been so offset.

A Shareholder which is a UK resident company owning at least 10 per cent. of the Ordinary Shares may, subject to the satisfaction of certain conditions, qualify under the substantial shareholding exemption for complete exemption from corporation tax in respect of any gain arising on the disposal of such Ordinary Shares.

(b) **Non-UK resident Shareholders**

A Shareholder who is neither resident, nor in the case of an individual, ordinarily resident, in the UK, will not be liable for UK tax on chargeable gains realised on the disposal of his/her/its Ordinary Shares unless such Shareholder carries on:

- (i) (in the case of Shareholders other than companies (including persons deemed to be companies)) a trade, profession or vocation in the UK through a branch or agency and has used, held or acquired the Ordinary Shares for the purposes of such trade, profession or vocation or such branch or agency; or

- (ii) (in the case of Shareholders which are companies (including persons deemed to be companies), body corporates or unincorporated associations) a trade or vocation in the UK through a permanent establishment and has used, held or acquired the Ordinary Shares in or for the purposes of the trade or vocation or has used, held or acquired the Ordinary Shares for the purposes of such permanent establishment.

An individual Shareholder that has ceased to be resident or ordinarily resident in the UK for tax purposes for a period of less than five complete years of assessment and who disposes of all or part of their Ordinary Shares during that period of temporary non-residence, may be liable on his return to the UK, to UK tax on chargeable gains arising during the period of absence, subject to any available exemption or relief.

Shareholders who are neither resident nor, in the case of an individual, ordinarily resident in the UK may be subject to foreign taxation on any gain under local law.

### **1.3 UK Stamp Duty and Stamp Duty Reserve Tax ("SDRT")**

Dealings in Ordinary Shares will normally be subject to stamp duty or SDRT. The transfer on sale of Ordinary Shares will usually be liable to ad valorem stamp duty, at the rate of 0.5 per cent. (rounded up, if necessary, to the next multiple of 0.5) of the amount or value of the consideration paid. Stamp duty will normally be paid by the purchaser or transferee of the Ordinary Shares. An unconditional agreement to transfer Ordinary Shares will normally give rise to a charge to SDRT, at the rate of 0.5 per cent. of the amount or value of the consideration payable for such shares, but such liability will be cancelled, or any SDRT paid refunded, if the agreement is completed by a duly stamped instrument of transfer within six years of the date of the agreement or, if the agreement was conditional, the date on which the agreement became unconditional. SDRT will normally be the liability of the purchaser or transferee of the Ordinary Shares.

Under the CREST system for paperless share transfers, no stamp duty or SDRT will arise on a transfer of shares into the system, unless the transfer into CREST is itself for consideration in money or money's worth, in which case a liability to SDRT will arise, usually at the rate of 0.5 per cent. of the amount or value of consideration given. Transfers of shares within CREST are generally liable to SDRT at the rate of 0.5 per cent. of the amount or value of the consideration payable rather than stamp duty, and SDRT on relevant transactions settled within the system or reported through it for regulatory purposes will be collected and accounted for to HMRC by Euroclear.

The above statements are intended to be a general guide to the current stamp duty and SDRT position. Certain categories of person are not liable to stamp duty or SDRT and others may be liable at a higher rate as mentioned above or may, although not primarily liable for the tax, be required to notify and account for it. Special rules apply to agreements made by market intermediaries and to certain sale and repurchase and stock borrowing arrangements. Agreements to transfer shares to charities will not give rise to stamp duty or SDRT.



## PART 8

### DIRECTORS, CORPORATE GOVERNANCE AND EMPLOYEES

#### 1. The Board

The Company has a single Board of Directors headed by a non-executive Chairman with management led by a Chief Executive Officer. The Board comprises 4 Non-executive Directors (including the Chairman) and 3 Executive Directors. Details of the Directors, including their dates of appointment, their memberships of board committees and the year in which each is next due for re-election are as follows:

Director	Function	Date of appointment	Year of next re-election
Francis Gugen	Non-executive Chairman <sup>(3)</sup>	27 December 2007	2012
Andrew Austin	Chief Executive Officer	27 December 2007	2014
John Blaymires	Chief Operating Officer	19 October 2010	2013
Stephen Bowler	Chief Financial Officer	1 November 2011	2012
John Bryant	Senior Independent Non-executive Director <sup>(1)(2)(3)</sup>	5 May 2004	2014
Richard Armstrong	Non-executive Director <sup>(1)(2)(3)</sup>	10 April 2007	2013
John Hamilton	Non-executive Director <sup>(1)(2)</sup>	10 December 2009	2012

<sup>(1)</sup> Member of Audit Committee

<sup>(2)</sup> Member of Remuneration Committee

<sup>(3)</sup> Member of Nomination Committee

The usual business address of each of the Directors is the registered office of the Company, which is at 7 Down Street, London W1J 8AJ.

#### 2. The Directors

##### 2.1 Details of the Directors

##### Francis Gugen

##### Non-Executive Chairman

Francis, 62, is a founder and Non Executive Chairman and has over thirty years' oil and gas industry experience. Between 1982 and 2000 he helped grow Amerada Hess in North West Europe, ultimately becoming CEO of North West Europe. Currently he is also Non-Executive Chairman of Petroleum Geophysical Services ASA, Chrysaor Holdings Limited and of CEOC Limited; and a board member of SBM Offshore NV all involved in conventional oil & gas. Until 2006 he served as non-executive Chairman of North Sea gas fields and pipelines operator CH4 Energy Limited before it was acquired in 2006 by Venture Production Plc. He was a member of the CBI's Economic Affairs Committee, past president of the UK Offshore Operators Association, past chair of the industries representation on the UK Government Oil & Gas Task Force (Pilot) and past chair of the CBI's Environmental Affairs Committee. Francis is a chartered accountant having worked for Arthur Andersen for eight years until 1982, principally as an oil and gas specialist.

##### Andrew Austin

##### Chief Executive Officer

Andrew, 46, is one of the founders and the Chief Executive Officer and previously he specialised in energy projects in the gas, electricity and renewables sector. Andrew has been an Executive Director since 2004 and for the last four years has been CEO with full time responsibility for day to day operations and business development. Prior to joining IGas, Andrew was involved in ventures as principal and has also raised substantial funds from private and public equity for clients during the course of his career to date. Andrew spent 17 years working in investment banking in the City of London with Merrill Lynch, Nomura, Citibank and Barclays Capital. Latterly he was General Manager of Creditanstalt Investment Bank in London. He also has six years of management and consultancy experience with clean tech companies including Generics Group and Whitfield Solar.

##### John Blaymires

##### Chief Operating Officer

John, 54, has 28 years of international experience in the oil and gas industry gained with the Hess Corporation and Shell International. Before joining IGas he was Director of Technology Development

for Hess based in Houston, where he helped develop a global engineering and geoscience technology group responsible for providing support across the E&P business, from deepwater to unconventional resources. Prior to that, John was Technical Director for Hess' operations in West Africa, and subsequently South East Asia with responsibility for several major oil and gas developments. John has a BSc and PhD in Mining Engineering from Leeds University.

**Stephen Bowler**  
**Chief Financial Officer**

Steve, 38, started his career at Touche Ross, now Deloitte, where he qualified as a chartered accountant, having spent time in both their audit and corporate finance divisions. In 1999, Steve joined ABN Amro Hoare Govett, now RBS Hoare Govett, where he has acted as adviser and broker to a wide range of companies with a particular focus on Exploration and Production.

**John Bryant**  
**Senior Independent Non-Executive Director**

John, 65, is the Non-Executive Chairman of AIM listed Weatherly International plc. He was until recently a board member of the Attiki Gas Company, which supplies natural gas to Athens and the surrounding districts. John previously served as president of Cinergy Global Resources Corp, responsible for all international business and global renewable power operations of this US based electricity and gas utility provider. Before joining Cinergy, John was executive director with Midlands Electricity plc. He has been involved in developing a number of large gas fired power stations both in the UK and overseas, together with both electricity and gas distribution in Europe and Africa, renewable power in Europe and North America and gas and electricity trading. His prior experience was at British Sugar plc, Drexel Limited, the British Oxygen Company and Unilever plc. Drexel, where he was president, was a global oil and gas equipment manufacturing and servicing company. John is a Fellow of the Institute of Directors and a Fellow of the Royal Society of Arts.

**Richard Armstrong**  
**Non-Executive Director**

Richard, 63, is an associate with Fiske plc, the AIM quoted stockbrokers. He is a former equity analyst with extensive experience in reconstructing and raising capital for turnaround situations especially in the quoted microcap sector, such as Weatherly International plc and Artilium plc. In most cases, he has joined the Board of these companies and has played a major role in helping them to acquire or establish operating businesses. He is currently a Director of a number of unquoted companies.

**John Hamilton**  
**Non-Executive Director**

John, 45, is the Managing Director of Levine Capital Management Advisors Limited, a UK incorporated company and Interim Chairman of President Petroleum Corporation Plc. John was previously the Group Finance Director of Imperial Energy Corporation Plc. Prior to joining Imperial Energy, John held senior positions at ABN AMRO.

## 2.2 Current and previous appointments

The following table sets out the names of all companies and partnerships outside the Group of which any Director is or has been a member of the administrative, management or supervisory body or a partner at any time in the previous five years (excluding subsidiaries of any company of which any Director is or was also a member of the administrative, management or supervisory body).

<i>Director</i>	<i>Current Directorships</i>	<i>Past Directorships</i>
Francis Gugen	Gugen Consulting Limited Echo Petroleum Limited Fraudscreen Limited Raft Trustees Limited Chrysaor Holdings Ltd Petroleum Geo Services ASA SBM Offshore N.V. CEOC Limited	Britannia Building Society Raft Enterprises Limited
John Blaymires	None	None
Stephen Bowler	None	None

<i>Director</i>	<i>Current Directorships</i>	<i>Past Directorships</i>
Andrew Austin	Austin and Austin Limited	Recombinogen Limited Whitfield Solar Limited
Richard Armstrong	Alphaworx Plc Blenheim Energy Limited Blenheim Wind and Biomass Limited Citypoint Investments Plc (in liquidation) Blenheim Wind (UK) Plc Devonshire Wind Projects Limited	Artium Plc B W A Group Plc Petrocapital Resources Plc Wind Ventures Limited Ecovista Plc Crescent Technology Ventures Plc Belisarius Limited Camvaxx Limited Safevaxx Limited Voipnetwork Limited Fortfield Investments Plc Crescent Hydropolis Resorts Plc
John Bryant	Axeman Overseas Limited Weatherly International Plc Blenheim Energy Limited China Africa Resources Plc Blenheim Wind & Biomass Ltd Devonshire Wind Projects Ltd	Gas Turbine Efficiency Plc Wind Ventures Limited Cinergy Global Hellas AS Attiki Gas Supply Company Attiki Denmark ApS
John Hamilton	Levine Capital Management Advisors Limited President Petroleum plc	Imperial Energy Corporation PLC Levine Capital Management UK LLP Imperial Energy Limited Imperial Energy Kostanai Limited Rus Imperial Corporation PLC Rus Imperial Limited

Richard Armstrong is a director of Citypoint Investments Plc, which was put into Members Voluntary Liquidation on 25 March 2011 on a solvent basis as part of a planned corporate reorganisation. Richard Armstrong was a director of Fortfield Investments plc (an Irish company) which was placed into members voluntary winding up on 12 January 2009, on a solvent basis, for the purposes of distributing its assets to the shareholders of Fortfield Investments plc by way of an in specie liquidation distribution.

John Bryant was a director of KP Renewables plc (now IGas Energy plc) on 10 April 2007 when that company entered into a company voluntary arrangement with its creditors. The arrangement was approved by members and creditors and was completed in accordance with its terms on 21 February 2008.

### 2.3 Interests of the Directors in the share capital of the Company

As at 21 November 2011 (being the latest practicable date prior to the publication of this document), the interests in the Issued Share Capital of the Company of each of the Directors and persons connected with them (as defined in section 252 of the Act) such interests being those which could with reasonable diligence be ascertained by each Director, whether or not held through another party, and being in addition to the interests held under option as described in paragraph 3 below, and the interests they are expected to have immediately following Admission are or will be as follows:

<i>Director</i>	<i>Present Number of IGas Shares</i>		<i>Following Admission Number of IGas Shares</i>		<i>Share awards</i>
		<i>%</i>		<i>%</i>	
Francis Gugen	27,615,764	17.23	27,615,764	17.23	—
Andrew Austin	10,659,253	6.65	10,659,253	6.65	1,029,702
Richard Armstrong	65,960	0.041	65,960	0.041	—
John Bryant	57,870	0.036	57,870	0.036	—
John Hamilton	85,000	0.05	85,000	0.05	—
John Blaymires	—	—	—	—	681,743
Stephen Bowler	—	—	—	—	396,040

## 2.4 Executive Directors service contracts and emoluments

- (A) The details of the service contracts of the Executive Directors none of which have been entered into or amended in the six months immediately preceding the publication of this document, save with respect to Stephen Bowler, who entered into his service agreement with the Company on his appointment to the Board on 1 November 2011:

Name of Executive Director	Contract date	Notice period	Contractual termination payments
Andrew Austin	9 December 2005 (as amended from time to time)	12 months	<i>Notice period only</i>
John Blaymires	3 February 2010	12 months	<i>Notice period only</i>
Stephen Bowler	1 November 2011	12 months	<i>Notice period only</i>

Each of the Executive Directors devotes such time as is required to discharge his duties, which in the case of A Austin, J Blaymires and S Bowler is full time.

- (B) The remuneration paid and benefits in kind granted to each of the executive Directors (excluding B. Cheshire who resigned on 20 June 2011) under their engagement terms with the Company during the financial year ended on 31 December 2010 was as follows:

Executive Directors	Salary £000	Bonus £000	Taxable Benefits £000	Pensions £000	2010 Total £000
F Gugen – Executive Chairman (to 19 October 2010)	83	—	—	—	83
A Austin – Chief Executive Officer	235	117	1	—	353
B Cheshire – Executive Technical Director	100	25	—	—	125
J Blaymires – COO (Appointed 19 October 2010)	29	9	1	—	39
<b>Total</b>	<b>447</b>	<b>151</b>	<b>2</b>	<b>—</b>	<b>600</b>

Since 31 December 2010 the following changes to directorships and directors compensation have taken place:

- (i) Mr Austin base salary has been increased to £260,000;
- (ii) Mr Blaymires base salary has been increased to £200,000;
- (iii) Stephen Bowler joined the Board on 1 November 2011 on a base salary of £200,000 and
- (iv) Brent Cheshire resigned as Executive Technical Director on 20 June 2011.

## 2.5 Non-executive directors' letters of appointment and emoluments

- (A) The following are the details of the Non-executive Directors' letters of appointment none of which have been entered into or amended in the six months immediately preceding the publication of this document:

Name of Non-executive Director	Contract date	Notice period	Contractual termination payments
Francis Gugen	6 April 2011	3 months	Notice period only
John Bryant	27 November 2007	3 months	Notice period only
Richard Armstrong	27 November 2007	3 months	Notice period only
John Hamilton	24 November 2009	3 months	6 months salary

- (B) The following are the details of the benefits and emoluments made available to the Non-executive Directors under their engagement terms with the Company for the year ended 31 December 2010:

Name of Non-executive Director	Emoluments £000
F Gugen – Non-Executive Chairman (from 19 October 2010)*	17
J Bryant – Senior Independent	35
R Armstrong	35
J Hamilton	35
<b>Total – Non-Executive Directors</b>	<b>122</b>

\* this compensation relates to a period during which Mr Gugen held the role of executive chairman.

Since 31 December 2010 Mr Gugen assumed the role of non-executive chairman for a fee of £80,000 and Mr Bryant assumed the role of senior non-executive director on a revised annual fee of £45,000.

The Non-Executive Directors are not entitled to participate in any bonus scheme of the Company and are not entitled to any pension or other benefits. They do not participate in the Share Schemes.

### 3. Share options granted to Executive Directors

3.1 As at 21 November 2011 (the latest practicable date prior to the date of this document) the following Executive Directors have been granted options under the Share Scheme (a summary of which is set out in paragraph 6 of Part 8):

Under the LTIP:

	Date of Grant	Granted	Exercised	Lapsed	Earliest vesting date
A Austin	21 November 2011	1,029,702	—	—	21 November 2014
J Blaymires	21 November 2011	681,743	—	—	21 November 2014
S Bowler	21 November 2011	396,040	—	—	21 November 2014

3.2 On 21 November 2011 Andrew Austin and John Blaymires waived all rights and entitlements under the 2010 IGas Energy plc Super Long Term Incentive Plan and the 2010 IGas Energy plc Share Option Plan.

3.3 Save as set out in paragraph above, and a total of 461,374 options that remain outstanding in respect of employees other than Directors under the LTIP and Share Option Plan the Company has not granted any options over its share capital or loan capital which remain outstanding nor has it agreed, conditionally or unconditionally, to grant such options.

### 4. Confirmations and other information

4.1 There is no family relationship between any of the Directors.

4.2 Apart from the current directorships set out in paragraph 2 of this Part 8 above and the other business interests disclosed above none of the Directors has any business interests or performs any activities outside the Group which are significant in respect to the Group.

4.3 There are no potential conflicts of interest affecting any of the Directors between their duties to the Company or to the IGas Group and their private interests.

4.4 Save as set out below, none of the Directors:

(A) is or has been a member of the administrative management or supervisory body of any company or a partner in any partnership outside the IGas Group at any time in the previous five years save as disclosed in paragraph 2 above; or

(B) has any convictions relating to indictable or fraudulent offences;

(C) has been declared bankrupt or made the subject of an individual voluntary arrangement;

(D) has been a director or senior manager of any company at the time of or within the twelve months preceding any receivership, compulsory liquidation, creditors' voluntary liquidation, administration, company voluntary arrangement or any composition or arrangement with creditors generally or any class of creditors of such company;

(E) has been a partner in any partnership at the time of or within twelve months preceding any compulsory liquidation, administration, receivership or partnership voluntary arrangement of such partnership;

(F) has had any of his assets subject to any receivership; and

(G) has been the subject of any public criticism or had sanctions imposed upon him by any statutory or regulatory authorities or been disqualified from acting in the management or conduct of the affairs of a company.

- 4.5 No Director has, or has had, any interest in any transactions which are or were unusual in their nature and conditions or significant to the business of the IGas Group and which were effected by the Company during the period from 1 January 2011 to the date of this document or during the financial year ended on 31 December 2010 or during any earlier financial year which remain outstanding or unperformed.
- 4.6 There are no outstanding loans or guarantees provided by the Company or the IGas Group to or for the benefit of any of the Directors.
- 4.7 There are no arrangements with major shareholders, customers, suppliers or others pursuant to which any of the Directors was selected as a Director, save that John Hamilton's services are provided pursuant to a consultancy agreement between the Company and Levine Capital Management Limited pursuant to which Levine Capital Management Limited retains the right to substitute an alternative suitable individual to discharge the duties of Mr Hamilton from time to time.
- 4.8 The total amount set aside or accrued by the IGas Group to provide pension, retirement or similar benefits is zero.
- 4.9 There are no arrangements under which any Director has waived or agreed to waive future emoluments nor has there been any waiver of emoluments during the financial year ended 31 December 2010.
- 4.10 Save as disclosed above, none of the Directors nor any member of their immediate families or any person connected with any of them holds or is beneficially or non-beneficially interested, directly or indirectly, in any shares or options to subscribe for, or securities convertible into, shares of the Company or any of its subsidiary undertakings or any financial product referenced to the Ordinary Shares.

## **5. Corporate Governance**

### **5.1 Combined Code**

The Board supports high standards of corporate governance and the guidance set out in the Combined Code on Corporate Governance (the "Combined Code"). As a Company that is quoted on AIM, it is not required to comply with the Combined Code but all the Directors intend to comply with its main provisions as far as is practicable having regard to the size and composition of the IGas Group.

### **5.2 The Board**

The Board consists of three Executive Directors and four Non-Executive Directors; with Mr Armstrong and Mr Bryant being considered to be independent. The Senior Independent Non-Executive Director is John Bryant and biographies of all the Directors are included on pages 255 to 256.

The Board retains full and effective control over the IGas Group. The Board meets regularly, at least eight times a year to consider reports on the operational and financial performance of the IGas Group and to decide on matters reserved unto itself, which include formulating, reviewing and approving the IGas Group's strategy, budgets, major items of capital expenditure and senior personnel appointments.

The Directors have established separate committees each chaired by a Non-Executive Director as follows:

### **5.3 Audit committee**

The committee comprises only Non-Executive Directors; being chaired by Richard Armstrong and having as other members: John Bryant and John Hamilton. The Chairman, Chief Executive Officer and Chief Financial Officer may attend only at the invitation of the committee.

The committee receives and reviews reports from management and the IGas Group's auditors relating to the IGas Group's annual report and accounts and from management relating to interim results announcements. The committee focuses particularly on compliance with legal requirements, accounting standards and the AIM Rules for Companies and on ensuring that effective systems of internal financial and nonfinancial controls (including for the management of risk and whistle-blowing) are maintained. However, the ultimate responsibility for reviewing and approving the annual report and accounts remains with the Board. The committee is also responsible for making recommendations to the Board on the appointment of the external auditors and their remuneration. The committee keeps



under review the external auditors' independence and considers the nature, scope, and results of the auditors' work and develops policy on and reviews (reserving the right to approve) any non-audit services that are provided by the external auditors.

The committee normally meets at least three times a year and meets the external auditors at least annually without the presence of the Executive Directors.

#### **5.4 Remuneration committee**

The committee comprises only Non-Executive Directors; being chaired by John Bryant and having as other members Richard Armstrong and John Hamilton. The committee, which normally meets at least twice a year, has responsibility for making recommendations to the Board on the Company's policy on the remuneration of the Chairman, Executive Directors and other senior executives (as are delegated to the committee to consider) and for determining, within agreed terms of reference, specific remuneration packages for each of them, including pension rights, any compensation payments and the implementation of executive incentive schemes. In accordance with the committee's terms of reference, no Director may participate in discussions relating to their own terms and conditions of service or remuneration.

#### **5.5 Nomination committee**

The Nomination committee is chaired by the Senior Independent Non-Executive Director, John Bryant, and its other members are the Non-Executive Director, Richard Armstrong, and the Chairman, Francis Gugen. The committee, which meets at least twice a year, has responsibility for considering the size, structure and composition of the Board, retirements and appointments of additional and replacement Directors and making appropriate recommendations to the Board. The committee is also tasked with ensuring that plans are in place for orderly succession to the Board and senior management positions, so as to maintain an appropriate balance of skills and experience within the IGas Group and the Board. The Chief Executive Officer of the Company is invited to attend meetings of the committee when the committee is discussing matters related to executive management and such other matters as the committee chairman deems appropriate.

#### **5.6 Rotation of the Board**

At each Annual General Meeting at least one-third of the Directors shall retire from office by rotation. The Directors to retire by rotation shall include, firstly, any Director who wishes to retire at the meeting and not offer himself for re-election and, secondly, those Directors who have been longest in office since their last appointment or reappointment, provided always that each Director shall be required to retire and offer himself for re-election at least every three years. Directors appointed by the Board hold office only until the dissolution of the Annual General Meeting of the Company next following such appointment.

#### **5.7 Internal control**

The Board acknowledges that it is responsible for establishing and maintaining the IGas Group's system of internal controls and reviewing its effectiveness. The procedures that include, inter alia, financial, operational and compliance matters and risk management are reviewed on an ongoing basis. The internal control system can only provide reasonable and not absolute assurance against material misstatement or loss. The Board has considered the need for a separate internal audit function but, bearing in mind the present size and composition of the IGas Group, does not consider it necessary at the current time.

#### **5.8 UK Bribery Act**

The Company is aware of the legislation relating to the UK Bribery Act and is ensuring that it has in place appropriate policies, procedures and will be reporting in full in the next published Annual Report and Accounts.

#### **5.9 Relations with shareholders**

Communications with shareholders are considered important by the Directors. The primary contact with shareholders, investors and analysts is the Chief Executive Officer. The other Executive Directors, however, regularly speak to investors and analysts during the year. Company circulars and press releases have also been issued throughout the year in relation to various proposals and for keeping investors informed about the IGas Group's progress.

The Company also maintains a website on the internet ([www.igasplc.com](http://www.igasplc.com)) that is regularly updated and contains a wide range of information about the IGas Group.

## 5.10 AIM Compliance

In order to comply with the AIM Rules for Companies, the Board where necessary considers AIM compliance matters at relevant Board meetings and reports back formally to its nominated adviser confirming that it has made it aware of all relevant compliance matters.

## 6. Share Schemes for Directors and employees

### *The IGas Energy plc Super Long Term Incentive Plan ("LTIP")*

In October 2010 the Company adopted a Long Term Incentive Plan scheme for certain key employees of the IGas Group. Under the LTIP, participants can each be granted nil cost options over up to 1.5% of the issued share capital of the Company (subject to an overall plan limit of 7.5% of the issued share capital of the Company for all participants). The LTIP has a three year performance period and awards vest subject to the achievement of stretching share price targets. On a change of control prior to the third anniversary of the grant date, a revised share price target reflecting the reduction in the performance period shall instead be used to determine the extent to which LTIP options vest. Other than on a change of control, 50% of vested awards can be exercised and sold on vesting, with the remaining 50% becoming exercisable on the first anniversary of vesting.

### *The IGas Energy plc Share Option Plan ("Share Option Plan")*

In October 2010 the Company adopted a Share Option Plan for certain key employees of the IGas Group. Both qualifying executives, directors and employees may participate in the Share Option Plan. Typically each individual participant can be granted options under the Share Option Plan with a market value at grant of up to 100% of his base salary, although this limit can be exceeded in exceptional circumstances. Share options vest in three equal tranches over a three year period from the date of grant and vested options are exercisable subject to the attainment of a Company share price target.

### *The IGas Energy plc Long Term Incentive Plan ("2011 LTIP")*

On 21 November 2011 the Company adopted a Long Term Incentive Plan scheme for certain key employees (directors or senior executives) of the IGas Group. Under the LTIP, participants can each be granted options providing the aggregate number of plan shares issued or committed to be issued, or granted in the preceding ten year period under any other employee share plan (whether or not discretionary), operated by the IGas Group, does not exceed ten per cent of the Company's issued ordinary share capital at that time. The LTIP has a three year performance period and awards vest subject to the achievement of performance targets. The general provision is that an option can be vested in whole or in part during the exercise period. On a change of control prior to the third anniversary of the grant date options shall vest on the date of change of control. The proportions of options vesting will be determined by the Board taking into account the length of time the option has been held by the participant and performance to date.

## 7. Employees

Details of the Group's employees as at the date of this document are as follows:

	Approximate Current Numbers	Average numbers for the three years ended on 31 December 2010		
		Year ended 31/12/2010	31/12/2009	31/12/2008
Total	15			
Full-time	15	6	5	3
Part-time	0	0	0	0

An approximate breakdown of employees by category is as follows:

Executive Directors	3
Technical	5
Administrative	7

All employees are located in the United Kingdom.



## PART 9

### ADDITIONAL INFORMATION

#### 1. Responsibility

The Directors, whose names appear on page 4 of this document, and the Company accept responsibility for the information contained in this document including collective and individual responsibility for the compliance with the AIM Rules for Companies. To the best of the knowledge and belief of the Directors and the Company (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and contains no omission likely to affect its import.

#### 2. The Company and its subsidiaries

The Company is registered and domiciled in England and Wales, having been incorporated on 1 December 2003 under the Act as a public company limited by shares with registered number 4981279.

2.1 The principal legislation under which the Company operates is the Act and regulations made thereunder.

2.2 The Company's registered office is at 7 Down Street, London W1J 8AJ. The telephone number of the Company's registered office is 020 7993 9899.

2.3 The business of the Company and its principal activity is to act as a holding company. Following Completion, the Enlarged Group's main activity will be appraising, developing and extracting hydrocarbons in the UK and providing technical and other related services to operators in the industry, this activity and operation will be carried on by the Company's subsidiary undertakings.

2.4 As at the date of this document, the Company has 3 subsidiaries:

<i>Name</i>	<i>Date of incorporation</i>	<i>Country of incorporation</i>	<i>Interest</i>
Island Gas Limited	12 November 2003	England	100%
Island Gas Operations Limited	22 May 2000	England	100%
IGas Exploration UK Limited	16 November 2001	England	100%

2.5 Immediately following Completion, the Company will be the holding company of the following subsidiary companies:

<i>Name</i>	<i>Date of incorporation</i>	<i>Country of incorporation</i>	<i>Interest</i>
Island Gas Limited	12 November 2003	England	100%
Island Gas Operations Limited	22 May 2000	England	100%
IGas Exploration UK Limited	16 November 2001	England	100%
Star Energy Group Limited	24 February 2004	England	100%
Star Energy Limited	14 July 1999	England	100%
Star Energy Weald Basin Limited	26 June 2007	Scotland	100%
Star Energy Oil & Gas Limited	7 July 1988	England	100%
Star Energy Oil UK Limited	25 February 1981	Scotland	100%
Star Energy (East Midlands) Limited	6 April 2000	England	100%
Larchford Limited	5 January 2006	Scotland	33.3%

2.6 The Company and its subsidiaries currently have 15 employees, following completion of the Acquisition the Group will have 158 employees.

#### 3. Share capital of the Company

3.1 As at 31 December 2007 the issued share capital of the Company was £29,553,591 divided into 59,107,182 Ordinary Shares.

On 25 June 2008 the Company issued 3,222,460 Ordinary Shares at a price of 65p each, to raise approximately £2,094,599 (before expenses) which represented £1,611,230 of called up share capital and £483,369 of share premium.

On 14 July 2009 the Company issued 5,766,666 Ordinary Shares at a price of 60p each.

On 10 December 2009 the Company issued 22,916,667 Ordinary Shares at a price of 60p each.

On 16 April 2010 the Company issued 82,500 Ordinary Shares at a price of 55p each in relation to the 82,500 warrants issued on 27 December 2007.

On 21 October 2010 the Company issued 2,013,956 Ordinary Shares at a price of 64.5p each.

On 9 March 2011 the Company acquired the entire issued share capital of Nexen Exploration UK Limited (renamed IGas Exploration UK Limited) for a consideration of £29.2 million. 39,714,290 new Ordinary Shares were allotted to Nexen Petroleum UK Limited credited as fully paid in consideration for this acquisition. The Company raised gross proceeds of £20.625 million for 27,500,000 new Ordinary Shares when this acquisition became unconditional on 9 March 2011.

- 3.2 The existing authorised and issued fully paid up share capital of the Company as at the date of this document is set out below:

	Number of issued and fully paid up shares	Authorised £
Ordinary Shares of 50p each	160,323,721	80,161,860.50

- 3.3 Save as otherwise disclosed in paragraph 3.1 above there has been no change in the amount of the issued share or loan capital of the Company and no material change in the amount of the issued share or loan capital of any other member of the IGas Group (other than intra-group issues by wholly-owned subsidiaries) in the three years preceding the date of this document/since the incorporation of the Company. No shares in the Company are held by the Company or any of its subsidiary undertakings.
- 3.4 Save as disclosed in this document, there are no acquisition rights or obligations over authorised but unissued share capital of the Company and there is no undertaking to increase the share capital.
- 3.5 The provisions of section 561 of the Act, which confers on shareholders rights of pre-emption in respect of the allotment of equity securities which are, or are to be, paid up fully in cash, other than by way of allotment to employees under an employee share scheme (as defined in section 1166 of the Act) will apply to the balance of the authorised but unissued Ordinary Share capital of the Company, to the extent that such rights are not disapplied by special resolution by the shareholders pursuant to section 570 of the Act.
- 3.6 Save as disclosed in this document, no commission, discounts, brokerages or other specific terms have been granted by the Company in connection with the issue or sale of any of its share or loan capital.
- 3.7 The International Securities Identification Number (ISIN) for the Ordinary Shares is GB00B29PWM59.
- 3.8 Following Admission, the Ordinary Shares may be held in registered form and in either certificated or uncertificated form.

#### **4. Share Options and Warrants**

- 4.1 Save as set out in parts 5, 8 and 9 of this document, there are no outstanding share options or warrants.
- 4.2 Save as disclosed in this document, no share capital of the Company will, at Admission, be under option or be agreed conditionally or unconditionally to be put under option.

#### **5. Articles of Association**

The Articles contain, inter alia, provisions to the following effect:

##### **5.1.1 Rights attaching to Ordinary Shares**

- (a) Voting rights of members

Subject to disenfranchisement in the event of (a) non-payment of any call or other sum due and payable in respect of any share or (b) any non-compliance with any

statutory notice requiring disclosure of the beneficial ownership of any shares and subject to any special rights or restrictions as to voting for the time being attached to any shares (as to which there will be none following Admission), on a show of hands every member who, being an individual, is present in person or by proxy or being a corporation, is present by a duly authorised representative who is not himself a member entitled to vote shall have one vote and on a poll shall have one vote for every share of which he is a holder. In the case of joint holders, the vote of the person whose name stands first in the register of members is accepted to the exclusion of any votes tendered by any other joint holders.

(b) Dividends

Subject to the rights attached to any shares issued on any special terms and conditions (as to which there will be none at Admission), dividends shall be declared and paid according to the amounts paid up on the shares on which the dividend is paid, but no amount paid up on a share in advance of a call shall be regarded as paid up on the share. Dividends are not payable on any fixed dates.

(c) Restrictions on shareholders

Subject to the AIM Rules for Companies, if a member or any other person appearing to be interested in shares, has been given notice under section 793 of the Companies Act 2006 and has failed to give information of their interest in any shares (the "Default Shares") within a prescribed time, the member shall not be entitled in respect of the Default Shares to attend or vote either personally or by proxy at a general meeting of the Company or a meeting of the holders of any class of shares or to exercise any other right in relation to general meetings of the Company or meeting of the holders of any class of its shares.

Where the Default Shares represent 0.25 per cent. or more (in nominal value or number) of the issued shares of a class, then the Company shall be entitled to withhold any dividend (or part thereof), any right to receive shares instead of a dividend or other money which would otherwise be payable in respect of the Default Shares. Where the Default Shares represent 0.25 per cent. or more (in nominal value or number) of the issued shares of a class, then no transfer of the Default Shares shall be registered.

#### 5.1.2 Redeemable shares

Subject to the provisions of the Companies Acts any shares may, with the sanction of a special resolution, be issued on terms that they are, or at the option of the Company or the Member are liable, to be redeemed on such terms and in such manner as may be provided for by these Articles or by a resolution of the Board.

#### 5.1.3 Deferred Shares

There are certain special rights, privileges, restrictions and limitations attaching to deferred shares as follows:

- (a) Deferred shares shall not be entitled to any dividends or to any other right or participation in the profits of the Company,
- (b) On a return of assets on liquidation, deferred shares shall confer on the holders thereof an entitlement to receive out of the assets of the Company available for distribution amongst the members (subject to the rights of any new class of shares with preferred rights) the amount paid up or credit as paid up on the deferred shares held by them respectively after (but only after) payment shall have been made to the holders of the ordinary shares of the amounts paid up or credited as paid up on such shares and the sum of £10,000,000 in respect of each ordinary share held by them respectively. The holders of deferred shares shall have no further right to participate in the assets of the Company,
- (c) The holders of deferred shares shall not be entitled to vote upon any resolution and shall not be entitled to receive notice of, attend any general meeting, or be part of the quorum thereof as the holders of the deferred shares,

- (d) Any reduction of capital involving the cancellation of deferred shares for no consideration shall not be deemed to be a variation of the rights attaching to them nor a modification or abrogation of the rights or privileges attaching to the deferred shares,
- (e) The special rights conferred upon the holders of deferred shares shall be deemed not to be modified, varied or abrogated by the creation or issue of further shares ranking *pari passu* with or in priority to the deferred shares,
- (f) Deferred shares shall not be entitled to be reissued with a share certificate,
- (g) No transfer of any deferred shares shall be permitted save that the Company shall have irrecoverable authority at any time to appoint any person to execute on behalf of the holders of the deferred shares a transfer thereof and/or an agreement to transfer the same, without making any payment to the holders thereof or g, to such person as the Company may determine as custodian thereof and/or to cancel the same without making any payment to the holders thereof and/or acquire the same (in accordance with the provisions of the Acts) without making any payment to or obtaining the sanction of the holders thereof.

#### 5.1.4 Rights of pre-emption

To the extent that such rights are not disappplied by special resolution by the shareholders pursuant to section 570 of the Companies Act 2006, shares in the Company are subject to the rights of pre-emption conferred by Chapter 3 of the Companies Act 2006 and in particular section 561 of the Companies Act 2006 which provides that issues by the Company of equity securities for cash must be carried out on a pre-emptive basis, with the shares being offered to holders of relevant shares in proportion to their existing holdings.

#### 5.1.5 Transfer of shares

A member may transfer all or any of his uncertificated shares and the Company shall register the transfer of any uncertificated shares in accordance with any applicable statutory provision. The Directors may refuse to register the transfer of an uncertificated share or any renounceable right of allotment of a share which is a participating security held in uncertificated form in accordance with the CREST Regulations to the extent that the Company is permitted to do so by the CREST Regulations, provided that where the uncertificated shares are admitted to AIM, such a refusal would not prevent dealings in the shares of that class taking place on an open and proper basis. If the Board refuses to register a transfer of an uncertificated share it shall, within two months of the date on which the operator instruction relating to such a transfer was received by the Company, send to the transferee notice of the refusal.

A member may transfer all or any of his certificated shares by an instrument in writing in any usual form, or in any other form which the Directors may approve. The instrument of transfer shall be executed by or on behalf of the transferee. The Directors may, in their absolute discretion and without giving any reason, refuse to register the transfer of a certificated share which is not fully paid up but shall not be bound to specify the grounds upon which such registration is refused provided that, where any such shares are admitted to AIM, such a refusal would not prevent dealings in the shares of that class taking place on an open and proper basis. The Directors may also refuse to register a transfer of a certificated share or a renunciation of a renounceable letter of allotment, whether or not fully paid, unless the instrument of transfer is lodged, duly stamped or adjudged or certified as not chargeable to stamp duty, at the transfer office, or such other place as the Directors may appoint and is accompanied by the certificate(s) for the share(s) to which it relates and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer or the person renouncing to effect the renunciation. If the Directors refuse to register a transfer of a share they shall, within two months after the date on which the transfer was lodged with the Company, send to the transferee notice of the refusal.

The Directors may refuse to register any transfer unless it is in respect of only one class of share and is in favour of not more than four transferees or renounees.

#### 5.1.6 **Changes in capital**

The Company may by ordinary resolution:

- (a) allot and grant rights to subscribe for or convert any security into shares of such amounts as the resolution shall prescribe;
- (b) consolidate and divide all or any of its share capital into shares of a larger amount than its existing shares;
- (c) sub-divide its shares, or any of them, into shares of a smaller amount than its existing Shares (subject to the provisions of the Companies Act); and
- (d) cancel shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.

Subject to the provisions of the statutes and the AIM Rules for Companies and to the rights attaching to existing shares, the Company may:

- (i) by special resolution purchase, or enter into a contract under which it will or may purchase, its own shares; and
- (ii) by special resolution reduce its share capital, any capital redemption reserve share premium account or other undistributable reserve in any manner.

#### 5.1.7 **Conversion of shares and stock**

Subject to the Uncertificated Securities Regulations 2001, the Company's Board may allow certified shares (as defined in the Company's Articles) to be converted into uncertified shares (as defined in the Company's Articles) and vice versa make rules which govern the mechanics of conversion and redemption of such shares.

Subject to the provisions of the Companies Acts and the Company's Articles and to any confirmation or consent required by law the Company may from time to time purchase its own shares of any class (including any redeemable shares) at any price, and whether above or below the nominal value of the shares and may enter into and vary any contract for such purchase provided that if the Company has in issue any shares which entitle the holders to convert them (whether immediately or otherwise) into equity shares of the Company ("Convertible Shares") then no purchase by the Company of any of its own shares shall take place unless it has been sanctioned by a special resolution passed at a separate class meeting of the holders of such class of Convertible Shares.

As from the date of the adoption of the Company's Articles, the Company is not permitted to convert further shares into stock. The Company may from time to time in general meeting reconvert any pre-existing stock into fully paid shares of any denomination.

#### 5.1.8 **Variation of rights**

Subject to the provisions of the statutes, if at any time the capital of the Company is divided into different classes of shares (which it will not be following Admission), the rights attached to any class may be varied or abrogated in such manner with the consent in writing of the holders of not less than three-quarters in nominal value of the issued shares of that class or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. At any separate general meeting, the necessary quorum shall be two persons holding or representing by proxy at least one-third in nominal amount of the issued shares of the class in question or, at any adjourned meeting of such holders, shall be one person holding shares of the class in question in person or by proxy whatever his or their holding. Every holder of the shares of the class present in person or by proxy shall, on a show of hands or on a poll, have one vote in respect of every share of the class held by them respectively and a poll may be demanded by any holder of shares of the class present in person or by proxy.

#### 5.1.9 **Directors**

- (a) The number of Directors (other than alternate Directors) shall not be less than four. There shall be no more than 10 Directors. The quorum for meetings of the Board may be fixed by the Board and, unless so fixed, shall be two.



- (b) A Director shall not be required to hold any shares of the Company by way of qualification.
- (c) There shall be no age limit for Directors.
- (d) At each annual general meeting at least one-third of the Directors for the time being shall retire from office by rotation. The Directors to retire by rotation shall include, firstly, any Director who wishes to retire at the meeting and not offer himself for re-election and, secondly, those Directors who have been longest in office since their last appointment or reappointment, provided always that each Director shall be required to retire and offer himself for re-election at least every three years. The retiring Director shall, if willing to act, be deemed to have been reappointed, unless at the general meeting it is resolved not to fill the vacancy or a resolution for the reappointment of the director is put to the meeting and not passed.
- (e) The Directors shall be entitled to such remuneration by way of fees (excluding amounts payable under other provisions of the Articles) for their services in the office of a Director as the Directors may determine (not exceeding £600,000 in aggregate per annum or such larger sum as the Company may, by ordinary resolution, decide). Such fee (unless otherwise directed by the resolution of the Company) shall be divided between the Directors as they agree or, failing agreement, equally.
- (f) The Directors may also be paid all travelling, hotel and other expenses properly incurred by them in connection with their attendance at meetings of the Directors or of committees of the Directors or general meetings or separate meetings of the holders of any class of shares of the Company.
- (g) The Directors may provide benefits, whether by the payment of gratuities or pensions or by purchasing and maintaining insurance or otherwise, for the benefit of any persons who are or were at any time Directors or the holders of any executive or comparable office of employment with the Company or any other company or undertaking which is or has been (a) a subsidiary of the Company or (b) otherwise allied to or associated with the Company or a subsidiary of the Company or (c) a predecessor in business of the Company or of any such subsidiary.
- (h) Subject to the provisions of the statutes a Director may be a party to or otherwise interested in any contract, transaction, arrangement or proposal with the Company or in which the Company is otherwise interested either in regard to his tenure of any office or place or profit or as vendor purchaser or otherwise. A Director may hold any other office or place of profit under the Company (except that of auditor or auditor of a subsidiary of the Company) in conjunction with the office of director and may act by himself or through his firm in such professional capacity to the Company and in any such case on such terms as to remuneration and otherwise as the Directors may arrange. Any remuneration shall be in addition to any remuneration provided for by any other article.
- (i) A Director who to his knowledge is in any way (directly or indirectly) interested in a contract, transaction, arrangement or proposal with the Company shall declare the nature of his interest at the meeting of the Board at which the question of entering into such contract, transaction, arrangement or proposal is first considered if he knows his interest then exists or in any other case at the first meeting of the Board after he knows that he is or has become so interested.
- (j) A Director shall not vote or be counted in the quorum on any resolution of the directors concerning his own appointment (including the fixing and varying of terms of appointment) as the holder of any office or place of profit with the Company or any other company in which the Company is directly or indirectly interested. Where proposals are under consideration concerning the appointment (including the fixing or varying of terms of appointment) of two or more Directors to offices or employment with the Company or any body corporate in which the Company is interested the proposals may be divided and considered in relation to each Director separately and (provided he is not under the Articles or for any other reason precluded from voting) each of the Directors concerned shall be entitled to vote and be counted in the quorum in respect of each resolution except that concerning his own appointment.

- (k) A Director shall not vote or count in the quorum in relation to a resolution or meeting of the Directors in respect of any contract or arrangement or any other proposals whatsoever in which he has an interest which (together with any interest of a connected person) to his knowledge is material interest. Notwithstanding the above, a Director shall be entitled to vote (and be counted in the quorum) on: (a) any contract in which he is interested by virtue of his interest in shares or debentures or other securities of or otherwise in or through the Company; (b) the giving of any guarantee, security or indemnity to him in respect of money lent or obligations incurred by him or by any other person at the request of, or for the benefit of, the Company or any of its subsidiary undertakings; or the giving of any guarantee, security or indemnity to a third party in respect of a debt or obligation of the Company or any of its subsidiary undertakings for which he himself has assumed responsibility in whole or in part and whether alone or jointly with others under a guarantee or indemnity or by the giving of security; (c) any matter relating to an offer of shares, debentures or other securities of or by the Company or any of its subsidiary undertakings in which offer the Director is or may be entitled to participate as a holder of securities or in the underwriting or sub-underwriting of which the Director is to participate; (d) any contract, transaction, arrangement or proposal to which the Company is or is to be a party relating to another company, including any subsidiary of the Company, in which he and any persons connected with him do not to his knowledge (directly or indirectly) hold an interest in shares (as that term is used in Part 22 of the Companies Act 2006) whether as an officer, Shareholder, creditor or otherwise representing one per cent. or more of any class of the equity share capital, or the voting rights, in that company or of any other company through which his interest is derived; (e) any contract, transaction, arrangement or proposal for the benefit of employees of the Company or any of its subsidiary undertakings (including in relation to a pension fund, retirement, death or disability benefits scheme or personal pension plan) which does not award him any privilege or benefit not generally awarded to the employees to whom the arrangement relates; and (f) any contract, transaction, arrangement or proposal concerning insurance which the Company proposes to maintain or purchase for the benefit of Directors or for the benefit of persons including Directors.

#### **5.1.10 Borrowing powers**

The Board may exercise all the powers of the Company to borrow money and to mortgage or charge all or any part of its undertaking, property and assets (both present and future) and uncalled capital and to issue debentures and other securities, whether outright or as collateral security for any debt, liability or obligation of the Company or of any third party. The Board shall restrict the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiary undertakings (if any) so as to secure (as regards subsidiary undertakings only so far as by such exercise it can secure) that the aggregate principal amount outstanding at any time in respect of all borrowings by the IGas Group (exclusive of any borrowings which are owed by one IGas Group company to another IGas Group company) after deducting the amount of cash deposited will not, without the previous sanction of the Company in general meeting, exceed an amount equal to three times the Adjusted Capital and Reserves (as defined in Article 43.3 of the Company's Articles) or any higher limit fixed by ordinary resolution of the Company which is applicable at the relevant time.

#### **5.1.11 Meetings**

Subject to the provisions of the Act, an annual general meeting shall be called by at least twenty-one clear days' notice in writing, and all other general meetings shall be called by at least fourteen clear days' notice in writing. The notice should specify the place, the date and the time of meeting and the general nature of the business to be transacted. A general meeting shall, notwithstanding that it has been called by shorter notice than that specified above, be deemed to have been duly called if it is so agreed in the case of an annual general meeting, by all the members entitled to attend and vote at the meeting; and in the case of any other meeting, by a majority in number of the members having a right to attend and vote at that meeting, being a majority together holding not less than 95 per cent. in nominal value of the shares giving that right.

#### **5.1.12 Unclaimed dividends**

Any dividend which has remained unclaimed for twelve years from the date when it became due for payment shall, if the Directors so resolve, be forfeited, revert to and cease to remain owing by the Company.

#### **5.2 Mandatory Bids**

The City Code applies to the Company. Under the City Code, if an acquisition of Ordinary Shares were to increase the aggregate holding of the acquiror and its concert parties to shares carrying 30 per cent. or more of the voting rights in the Company, the acquiror and, depending on the circumstances, its concert parties would be required (except with the consent of the Panel on Takeovers and Mergers) to make a cash offer for the outstanding shares in the Company at a price not less than the highest price paid for the Ordinary Shares by the acquiror or its concert parties during the previous 12 months. This requirement would also be triggered by any acquisition of shares by a person holding (together with its concert parties) shares carrying between 30 and 50 per cent. of the voting rights in the Company if the effect of such acquisition were to increase that person's percentage of the voting rights. There are no provisions in the New Articles of Association of the Company delaying, deterring or preventing a change of control of the Company.

#### **5.3 Mandatory compulsory purchase or "squeeze out" provisions**

Sections 974 to 991 of the Companies Act 2006 are applicable to the Company, so should a takeover offer be made for all the Ordinary Shares then in issue (other than any already held by the offeror) and the offeror, by virtue of acceptances of the offer, has acquired or contracted to acquire not less than nine-tenths of such Ordinary Shares, excluding any such shares held in treasury, the offeror may compulsorily acquire the rest of such Ordinary Shares upon the same terms as those contained in the offer by serving a statutory notice on each holder of such Ordinary Shares who has not accepted the offer. Further, a holder of Ordinary Shares who has not accepted the offer may, where the offeror has acquired or contracted to acquire not less than nine-tenths of such Ordinary Shares, give notice to the offeror, requiring the offeror to purchase his Ordinary Shares. If the offeror has not previously served notice requiring the compulsory acquisition by the offeror of the outstanding Ordinary Shares it must serve notice upon each holder of such Ordinary Shares who has not accepted the offer, within one month of the right of the holder to require the offeror to purchase his Ordinary Shares arising, setting out the rights of such holders to require the offeror to purchase their Ordinary Shares which may specify a time limit for the exercise of those rights which may end no earlier than three months after the end of the period within which the offer can be accepted.

Where a notice has been served by the offeror on a holder of Ordinary Shares requiring the compulsory acquisition of his Ordinary Shares, such holder may challenge the same by applying to the court within six weeks of the notice being served upon him. The court may order that the offeror shall not be entitled to acquire the relevant Ordinary Shares or that it may only do so on different terms from those of the offer, although to succeed the relevant holder of Ordinary Shares will have to show that the terms of the offer are unfair. Where a holder of Ordinary Shares has served a notice upon an offeror, requiring the offer to purchase his Ordinary Shares, either such holder or the offeror may apply to the court for an order that the relevant Ordinary Shares shall be acquired on different terms to those set out in the offer. The court may not order a holder of Ordinary Shares who is making an application to pay any costs or expenses unless it considers that the application was unnecessary, improper or vexatious, there has been unreasonable delay in making his application or unreasonable conduct on his part in conducting the proceedings.

#### **5.4 Notice of 3% interests**

Subject to certain qualifications and exceptions, Chapter 5 of the Admission and Disclosure Rules of the Financial Services Authority requires that a person who acquires an interest in 3% or more of the voting rights attaching to issued voting shares of a company whose shares are admitted to trading on AIM must, within two business days of such acquisition, or of his becoming aware of the facts constituting the acquisition of the interest, notify the Company and the FSA of his interest. If while he has such an interest, he acquires or disposes of an interest in 1% or more of the voting rights attaching to issued voting shares of the Company



he must notify that event, and must also notify the cessation of his having a 3% interest. Where a person is party to an agreement between two or more persons which obliges them to adopt by concerted exercise of voting rights a lasting common policy towards the management of the Company, the interests of all such persons are aggregated for the purposes of the notification provisions and each party is required to notify not only his own interests and changes therein but those of the other parties to the agreement. All notifications received under these provisions will be the subject of a public announcement under the AIM Rules for Companies.

## 5.5 Requirement to disclose interests in voting rights

Under provisions contained in Part 22 of the Companies Act 2006 the Company may serve a notice on any person who it believes has, or may in the three previous years have had, an interest in its voting shares requiring them to give particulars of their interest, or, if no interest is then held, of any person to whom any previous interest was transferred. The Company must exercise its right to serve such a notice if required to do so by holders of at least 10% of its paid up voting shares. Failure to comply with a notice is a criminal offence and the Company may impose sanctions against the Shareholder concerned under its Articles of Association including disenfranchisement, withholding of dividends and restrictions on transfer. "Interest" is widely defined and includes an interest of any kind in the shares, subject to certain specific exclusions, but "interest" includes, inter alia, an agreement to purchase shares or the right to do so by virtue of an option and a person is interested in shares held by companies which he controls or by his spouse, civil partner and children and where a person is party to an agreement between two or more persons that includes provisions for the acquisition by any one or more of them of interests in shares of the Company which imposes obligations or restrictions on any one or more of the parties with respect to their use, retention or disposal of such interests and such interests are acquired in pursuance of any agreement, each party to the agreement is regarded as interested in the shares held by each other such party.

## 6. Substantial shareholders

6.1 Save for the following persons disclosed below, the Company is not aware of any person who, at the date of this document and following the Acquisition, directly or indirectly, jointly or severally, holds or will hold three per cent. or more of the Issued Share Capital of the Company or exercises or could exercise control over the Company:

	<i>As at the date of this document and following Admission</i>	
	<i>No. of Ordinary Shares</i>	<i>% of Share Capital</i>
Nexen Petroleum UK Limited	39,714,290	24.77
Francis Gugen	27,615,764	17.23
Levine Management and Peter Levine	14,429,135	8.80
Brent Cheshire	11,429,253	7.13
Andrew Austin	10,659,253	6.65
Baillie Gifford	8,088,217	5.04

6.2 All shareholders have identical voting rights in respect of the Ordinary Shares held by them.

## **7. Material contracts**

- 7.1 The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by the Company or another member of the IGas Group (i) within the two years immediately preceding the date of this document and are, or may be, material or (ii) at any time and contain provisions under which any member of the IGas Group has an obligation or entitlement which is material to the IGas Group at the date of this document:

### **Financing Agreements**

- 7.1.1 On Completion, the Company will issue the Warrants to Macquarie pursuant to the Warrant Instrument to acquire Ordinary Shares at an exercise price of 55.8 pence. The principal terms of the Warrant Instrument are as follows:

- (a) the Warrants may be exercised at any time from the first utilisation of a Loan (as defined in the Credit Agreement) until the earlier of:
  - (i) the date on which all Warrants have been exercised;
  - (ii) the date of termination of the Warrants pursuant to a takeover offer for the Company; and
  - (iii) six years after the date of first utilisation of the Loan as defined in the Credit Agreement (or, if on the applicable end date, the holder would be considered to have non-public price sensitive information relating to the Company, 90 days following the date on which the holder is no longer considered to hold such information);
- (b) Ordinary Shares issued on the exercise of the Warrants will rank in all respects *pari passu* with existing fully paid Ordinary Shares;
- (c) the holder of the Warrants can elect to exercise all or some of the Warrants according to four completion methods:
  - (i) regular exercise, whereby the holder makes remittance to the Company on the date of exercise of an amount equal to the aggregate Subscription Price (as defined in the Warrant Instrument, being 55.8 pence unless nominal exercise applies – see paragraph 7.1.1(c) (iii) below);
  - (ii) facility offset, whereby an amount of indebtedness owed by the Company to the holder is satisfied by the issue of Ordinary Shares pursuant to the exercise of the Warrants;
  - (iii) nominal exercise, whereby the holder can elect to exercise the Warrants at an exercise price of the par value of the shares. The number of Warrants which can be exercised in this way is calculated in accordance with a formula contained in the Warrant Instrument; and
  - (iv) cashless exercise, whereby the holder can exercise a proportion of the Warrants when the share price is equal to the Cashless Exercise Price (as calculated in accordance with the Warrant Instrument). The remaining Warrants to be exercised using this method are then cancelled and discharged by the holder in consideration of the payment by the Company of an amount equal to the aggregate strike price for the shares to be issued pursuant to the exercise of the Warrants. The obligation of the Company to pay such amount is offset against the obligation of the holder to pay the subscription price in respect of the Ordinary Shares issued pursuant to this completion method. The cashless exercise mechanism falls away in the event that the Company passes resolutions to reduce the nominal value of its Ordinary Shares to 10p or less.
- (d) the Warrant Instrument contains provisions for the appropriate adjustment of the number of Ordinary Shares issued on the exercise of the Warrants and the subscription price upon a subdivision, consolidation, capitalisation of profits or reserves or other reorganisation of share capital;
- (e) during the subscription period, the Company undertakes:
  - (i) to maintain sufficient authorities to issue Ordinary Shares to satisfy the exercise of the Warrants,

- (ii) not to issue any share capital other than Ordinary Shares pursuant to the Warrants;
  - (iii) not to alter the Articles or the rights attached to the Ordinary Shares, except for alterations which are properly adjusted for under the Warrant Instrument and would not be otherwise prejudicial to the economic interest of the holder;
  - (iv) not to issue or pay up securities by way of capitalisation of profits or reserves other than Ordinary Shares issued pursuant to the Warrants and properly adjusted for under the Warrant Instrument;
  - (v) not to issue any equity share capital for less than full market value;
  - (vi) not to declare or pay any dividend or make any distribution of profits or reserves without making a simultaneous payment to the holder of a sum equal to the amount which it would have received had it exercised its rights in full;
  - (vii) not to reduce its share capital or share premium account or capital redemption reserve without the holders' written consent;
  - (viii) not to purchase or redeem any share capital (other than deferred shares having no economic value) without the written consent of the holder;
  - (ix) not to offer or invite its shareholders to subscribe for equity share capital unless it notifies the holder and provides it with the same information at the same time as it provides such information to the shareholders;
  - (x) not to carry out a placing of shares or other non-pre-emptive issue unless the holder is offered, on the same terms, to participate in the placing, such participation to be calculated in accordance with a formula contained in the Warrant Instrument; and
  - (xi) not to grant any other share options unless the holder is offered a participation on the same terms;
- (f) if a takeover offer is made to all holders of Ordinary Shares, the Company shall notify the holder and procure that the offer remains open for a minimum of 15 business days to allow the holder to exercise its Warrants and participate in the takeover offer;
- (g) Warrants may be transferred to a nominee, trustee or affiliate of or fund managed by the holder without the Company's consent or to any other proposed transferee with the consent of the Company; and
- (h) the Company will use its reasonable endeavours to procure that its existing share capital is sub-divided to a price of not more than 10 pence per share as soon as reasonably practicable after the date of the Warrant Instrument (and no later than six months after such date).

7.1.2 On 21 November 2011 the Company and Macquarie entered into a senior secured facility agreement (the "Credit Agreement"). The Credit Agreement consists of three separate facilities:

- (i) a US\$90,000,000 5 year senior secured term loan, carrying interest at 5.5% over LIBOR and a 2% commitment fee;
- (ii) a US\$45,000,000 5 year senior secured term loan, carrying interest at 12% above LIBOR and a commitment fee of 3.5%; and
- (iii) an uncommitted working capital facility of up to US\$15,000,000 which may be made available at the discretion of Macquarie.

The Credit Agreement contains certain representations, warranties and covenants customary for a credit facility of this nature. Such covenants include the provision of financial and reporting information, compliance with environmental law, maintenance of financial ratios and certain restrictions on mergers, acquisitions, joint ventures, granting of security, disposals, issuances of loans, incurrence of financial indebtedness and on payments of dividends by the

Company and the other Obligors (as defined below). The Credit Agreement also contains customary events of default, the occurrence of which allow Macquarie (and any other lender that accedes to the Credit Agreement) to accelerate outstanding loans and terminate the commitments. The facilities are required to be repaid in full on the date that is 60 months following the completion of the Acquisition, on a change of control and the sale of the assets of the Group. In addition mandatory prepayments are to be made upon the occurrence of certain specified events, including upon certain disposals.

The obligations each of the obligors under the Credit Agreement and related documents are guaranteed by the Company, each of the IGas Subsidiaries and the Star Subsidiaries (excluding Larchford Limited and Star Energy Oil UK Limited) (together the “Obligors”) which entities will accede to the Credit Agreement as additional guarantors on completion of the Acquisition.

- 7.1.3 As security for the payment and discharge of the obligations and liabilities of the Obligors under the Credit Agreement and related documents, on 21 November 2011 each of the Obligors entered into a debenture (the “Debenture”) in favour of Macquarie (and any other lender that accedes to the Credit Agreement). The Debenture contains a grant of fixed and floating charges over all of the assets of each Obligor including a charge over the shares in its subsidiaries and an assignment of its right, title and interest in the material contracts to which it is a party and its insurance policies. The Debenture also contains certain covenants such as the maintenance of the assets charged, the realization of receivables in designated collection accounts and a restriction on the disposal of any of the assets charged. The Debenture is expressed to be enforceable upon the occurrence and continuation of an Event of Default (as defined in the Credit Agreement) in which case any monies realised by such enforcement would be applied in accordance with the terms of the Credit Agreement.

#### **Hedging Agreements**

- 7.1.4 On 31 October 2011, the Company entered into a 2002 ISDA Master Agreement with Macquarie Bank Limited. Under the 2002 ISDA Master Agreement, together with the Schedules and Confirmations made or to be made thereunder (the “Macquarie ISDA Master Agreement”), the Company agreed to enter into a number of derivative transactions with Macquarie. These derivative transactions will hedge the future exposure of the Company and its subsidiaries to fluctuations in certain rates or prices that the Company will be exposed to after completion of the Acquisition and financing agreements related to the Acquisition. Pursuant to the Macquarie ISDA Master Agreement, the Company agreed to enter into swap transactions with the Bank hedging foreign exchange risk and the price of Brent Crude Oil.
- 7.1.5 On 31 October 2011, the Company, together with the IGas Subsidiaries entered into a guarantee agreement with Macquarie Bank Limited (the “Guarantee Agreement”). The primary purpose of the Guarantee Agreement was for the IGas Subsidiaries to guarantee the Company’s obligations to Macquarie under the Macquarie ISDA Master Agreement, pursuant to which the Company entered into a number of derivative transactions with Macquarie. In the Guarantee Agreement the Company provided certain representations and warranties to Macquarie regarding the accuracy of information and quality of security that it had provided to Macquarie, pursuant to the Macquarie ISDA Master Agreement and a security agreement entered into with Macquarie in relation to the derivative transactions. The Guarantee Agreement also required the Company to provide certain documentation to Macquarie relating to the IGas Group and the Acquisition of Star Energy Group Limited.
- 7.1.6 On 31 October 2011, the Company, together with the IGas Subsidiaries entered into a security agreement with Macquarie Bank Limited (the “Security Agreement”) whereby the Company and the IGas Subsidiaries agreed to provide security in favour of Macquarie, in relation to their respective obligations under the Macquarie ISDA Master Agreement and the related Guarantee Agreement. Under the Security Agreement, the Company created a first fixed charge in favour of Macquarie over a number of the assets of the Company, including the receivables, buildings and machinery, hydrocarbon licences and field rights, and securities of the Company as well as creating a floating charge over all additional present and future business, assets and undertaking. This security relates to the obligations of the Company arising out of the Macquarie ISDA Master Agreement, pursuant to which the Company entered into a number of derivative transactions with Macquarie, hedging the Company’s future

exposure to fluctuations in foreign exchange rates and the price of Brent Crude Oil. Additionally, under the security agreement the Company also granted Power of Attorney to the Bank, in order to (among other things) allow the bank, if necessary, to carry out on behalf of the Company, any obligation of the Company that is owed to the Bank under the Security Agreement or any other agreement to which the Bank is a party.

#### **Acquisition Agreements**

- 7.1.7 The Acquisition Agreement is dated 16 September 2011 between (1) IGas and (2) Petronas. Pursuant to the terms of the Acquisition Agreement IGas has agreed to purchase the entire issued share capital of Star together with the benefit of a loan outstanding from Star to Petronas from Petronas for a consideration of £110 million in cash.

The Acquisition Agreement contains warranties from Petronas with respect to, amongst other things, the proper and lawful operation of the business of Star and the capacity of Petronas as seller.

Any claims which could potentially be made by IGas against Petronas are limited by the terms of the Acquisition Agreement to the value of £100 million and, in respect of warranty claims, any claims may only be made where the liability in relation to the claim exceeds £5 million for any individual claim, and an aggregate of £10 million for all claims.

A time limit of 9 months following 31 March 2011 is imposed for making claims under the general warranties and a time limit of 6 years following 31 March 2011 is imposed for making claims under the tax warranties or under the Tax Deed. The Acquisition Agreement is governed by English law.

- 7.1.8 On 16 September 2011 the Company and Petronas Energy Trading Limited ("Petronas Energy") entered into a gas sales and marketing deed in which the Company will sell up to 150 Bscf of gas to Petronas Energy and provide additional services. The price is set by the last published price in the latest issue of European Spot Gas Markets. Petronas has the exclusive right to purchase and market all quantities of gas produced from the resource base, or properly nominated or delivered at the delivery points.
- 7.1.9 At Completion the Company will enter into a services agreement with Star Energy HG Gas Storage Limited ("Star Energy HG") and Star Energy Weald Basin Limited ("SEW") (the "Star Energy HG Services Agreement") whereby SEW will provide certain operational and management services (as detailed in the SEW Services Agreement) in respect of certain retained gas storage businesses following the completion of the Acquisition Agreement and Reorganisation (as defined thereunder). Under the Star Energy HG Services Agreement, Star Energy HG will pay fees on a monthly invoice basis of pro rata personnel costs equivalent to the 12 month period prior to completion of the Acquisition plus 18 per cent (subject to annual review).
- 7.1.10 At Completion SEW and Star Energy HG will enter into a services agreement ("the SEW Services Agreement") whereby Star Energy HG will provide control room access to certain personnel in connection with monitoring, operating and managing of certain oil fields transferred as part of the Reorganisation (as defined in the Acquisition Agreement) and/or certain office facilities in relation to the same. SEW will pay £10,000 in monthly arrears for the term of the SEW Services Agreement. The term of the SEW Services Agreement is 6 months unless otherwise agreed between the parties.
- 7.1.11 On Completion Star Energy HG Gas Storage Limited ("HGGSL") and Star Energy Weald Basin Limited ("SEW") will enter into an oil sale and purchase agreement. Under this agreement the Company has agreed to transfer its interests in a retained licence (licence number P116) and related assets to HGGSL and SEW has agreed to purchase oil from HGGSL. The oil is in relation to production from Humbly Grove and the Herriard Field. SEW will also arrange for the transportation of the oil. HGGSL warrants on an indemnity basis that the oil made available for delivery and sale is in accordance with the specification. Indicative volumes are to be agreed not less than one month before the next calendar year and provisions for detailing the quantity are provided for in the agreement. The agreement remains in force until the retained licence expires or, if earlier, then HGGSL serving 12 months' written notice on SEW. Payment due is in US\$ and is set by a formula related to the price per barrel of oil less sums for discounts.



- 7.1.12 The parties to the Acquisition Agreement have also entered into a taxation deed (the “Tax Deed”) pursuant to which Petronas has agreed to indemnify IGas against certain charges to taxation should such charges arise in the future out of the activities of Petronas prior to the date of Completion. Claims under the Tax Deed may be brought for a period of up to 6 years following 31 March 2011.
- 7.1.13 On 2 May 2011 the Company and Hydrocarbon Strategic Services SA entered into an agreement relating to the Acquisition pursuant to which Hydrocarbon Strategic Services SA is entitled to a finders fee with respect to the Acquisition in the sum of £1,113,000 of which £163,000 is payable in cash on Admission and £950,000 to be satisfied by the issue of 1,881,188 Ordinary Shares at a price of 50.5p per Ordinary Share on completion of the Acquisition.
- 7.1.14 On 28 January 2011, the Company entered into a share purchase agreement with Nexen Petroleum U.K. Limited (“Nexen Petroleum”) relating to the sale and purchase of the whole issued share capital of Nexen Exploration U.K. Limited (“Nexen Exploration”). The agreement completed on 10 March 2011, on which date Nexen Exploration became a wholly-owned subsidiary of the Company. The consideration paid by the Company to Nexen Petroleum was the allotment and issue of 39,714,290 ordinary shares in the capital of the Company (the “Nexen Shares”) (having an aggregate value of £29.2 million).
- 7.1.15 On 11 February 2011, the Company entered into a placing agreement (the “2011 Placing Agreement”) with RBS Hoare Govett pursuant to which RBS Hoare Govett procured placees for 27,500,000 new Ordinary Shares (the “2011 Placing Shares”) in the capital of the Company. The fees which were payable by the Company to RBS Hoare Govett consisted of (i) a commission equal to 2.5 per cent. of the aggregate value of the 2011 Placing Shares at the placing price; and (ii) a fee equal to 0.5 per cent. of the aggregate value of the 2011 Placing Shares at the placing price, payable at the discretion of the Company. The Company also agreed to bear all expenses of and incidental to the 2011 Placing Agreement. The 2011 Placing Agreement also contained (i) customary warranties, *inter alia*, as to the accuracy of information prepared by the Company and provided in relation to the placing and (ii) indemnities to RBS Hoare Govett which were not unusual in the type of transaction.
- 7.1.16 On 19 August 2010, the Company entered into an agreement with RBS Hoare Govett Limited (“RBS Hoare Govett”) pursuant to which (i) RBS Hoare Govett agreed to act as nominated adviser to the Company pursuant to rule 1 of the AIM Rules for Companies; and (ii) RBS Hoare Govett agreed to act as broker to the Company pursuant to rule 35 of the AIM Rules for Companies. The fees payable by the Company to RBS Hoare Govett under this agreement are £50,000 (plus any applicable VAT) and the Company shall also reimburse RBS Hoare Govett’s out of pocket expenses incurred in connection with the agreement. The Company has given certain indemnities to RBS Hoare Govett which are not unusual in this type of transaction. The agreement shall continue unless and until terminated by either party by written notice.
- 7.1.17 On 25 November 2009, the Company entered into a placing agreement (the “November 2009 Placing Agreement”) with Cenkos and Levine Capital Management Limited (“LCM”) pursuant to which Cenkos procured placees for 22,916,667 new ordinary shares in the capital of the Company and LCM agreed to underwrite the entire placing. The fees which were payable by the Company to Cenkos consisted of commissions of £859,376, in aggregate. The Company also agreed to bear Cenkos’ out-of-pocket costs, charges and expenses and certain other costs of LCM, as set out in the November 2009 Placing Agreement. The November 2009 Placing Agreement also contained (i) customary warranties to each of Cenkos and LCM, *inter alia*, as to the accuracy of information prepared by the Company and provided in relation to the placing and (ii) indemnities to Cenkos and LCM which were not unusual in the type of transaction.
- 7.1.18 In connection with the acquisition of Nexen Exploration UK Limited, the Company entered into a lock-up agreement with Nexen Petroleum and RBS Hoare Govett dated 10 March 2011 pursuant to which Nexen Petroleum has undertaken, provided that the Nexen Shares represent 20 per cent. or more of the issued share capital of the Company, and subject to certain limited exceptions, including a sale in the event of an offer for the entire issued share capital of the Company, not to dispose of any of the Nexen Shares until 10 December 2011 (such period being the “Lock-up Period”). During the Lock-up Period, Nexen Petroleum may

not dispose of some or all of the Nexen Shares without the prior written consent of the Company. Between the expiry of the Lock-up Period and 10 November 2012 if the Nexen Shares represent 20 per cent. or more of the issued share capital of the Company, Nexen Petroleum may dispose of some or all of the Nexen Shares provided that it gives notice of its intention to effect a disposal to the Company and RBS Hoare Govett. Such disposal will be required to be effected in accordance with the reasonable requirements of the Company and RBS Hoare Govett, including: (i) that the disposal is effected through RBS Hoare Govett; and (ii) a delay in the disposal of up to 5 business days from the date upon which Nexen Petroleum first notifies the Company and RBS Hoare Govett of its intention to effect a disposal of Nexen Shares.

7.2 The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by IGas Subsidiaries (i) within the two years immediately preceding the date of this document and are, or may be, material or (ii) at any time and contain provisions under which any member of the IGas Group has an obligation or entitlement which is material to the IGas Group at the date of this document:

7.2.1 On 5 August 2009 and 24 November 2009 the IGas Group entered into farm-up agreements with Nexen (the "Farm-up Agreements"), under which the Group has agreed to meet 100% of certain costs incurred in relation to certain licences, thereby discharging what, but for these agreements, would have been Nexen's share of such licence costs. The IGas Group's commitment is for up to £2 million of gross costs in the case of the agreement of 5 August 2009 and for £5 million of gross costs in the case of the agreement of 24 November 2009. In return the IGas Group's interest in the Swallowcroft licences in Staffordshire (excluding Pedl 78-2) rose from 20% to 35%, in the Point of Ayr licences from 50% to 75% and in Northwest licences from 20% to 35%.

7.2.2 In connection with the acquisition by the Company of Nexen Exploration UK Limited, on 10 March 2011, Island Gas Limited entered into a services agreement with Nexen Petroleum (the "Nexen Services Agreement"), whereby Nexen provides the services of two consultants to Island Gas Limited until 10 November 2011 and 10 March 2012, respectively. Island Gas Limited pays fees to Nexen Petroleum equivalent to the remuneration paid by Nexen Petroleum to the consultants. The Nexen Services Agreement may be terminated by either party if the other commit a material or persistent breach of its obligations under the agreement, passes a resolution for winding up, makes a voluntary arrangement with its creditors, or ceases to carry on business.

7.3 Related party transactions (which for these purposes are as set out in the standards adopted according to the Regulation (EC) No 1606/2002) that members of the Group have entered into during the three financial years ended 31 December 2008, 31 December 2009 and 31 December 2010 and up to the date of this document are set out at Notes 6, 12 and 21 of the Company's Annual Report and Accounts 2008; Notes 5,12 and 18 of the Company's Annual Report and Accounts 2009; and Notes 5 and 19 in relation to the Company's Annual Report and Accounts 2010 as referred to in Part 5 of this document.

## **8. Working capital**

The Directors are of the opinion having made due and careful enquiry, that the working capital available to the Enlarged Group will be sufficient for its present requirements, that is for at least 12 months from the date of Admission.

## **9. Litigation**

There are no governmental, legal or arbitration proceedings, active, pending or threatened against, or being brought by, the Company or any of the IGas Subsidiaries, which may have or have had during the 12 months preceding the date of this document a significant effect on the Company's financial position or profitability.

## **10. Overseas Securities Laws**

### **10.1 General**

It is the responsibility of any person (including, without limitation, nominees and trustees) outside the United Kingdom to satisfy himself as to the full observance of the laws of the relevant jurisdiction in connection therewith, including the obtaining of any governmental or

other consents which may be required, the compliance with other necessary formalities and the payment of any issue, transfer or other taxes due in such jurisdiction. **The comments set out in this paragraph are intended as a general guide only and anyone who is in doubt as to his position should consult his professional adviser without delay.**

Persons receiving a copy of this document should not distribute or send it into any jurisdiction where to do so would or might contravene local securities laws or regulations.

The attention of persons with registered addresses in the United States or any of Australia, Canada, Japan or the Republic of Ireland is drawn to paragraphs 10.2 below.

**10.2 United States, Australia, Canada, Japan, South Africa, New Zealand and the Republic of Ireland**

Due to restrictions under the securities laws of the United States, Australia, Canada, Japan, South Africa and the Republic of Ireland (the “**Excluded Territories**”), Ordinary Shares in the Company may not be offered, sold or otherwise transferred in or into any Excluded Territory or in any other jurisdiction where such distribution, offer or solicitation would be unlawful.

**11. Other information**

11.1 The total costs and expenses payable by the Company in connection with or incidental to the Admission including London Stock Exchange fees, printing and advertising and distribution costs, legal and accounting fees and expenses for procuring placees are estimated to amount to approximately £3.8 million (including any irrecoverable VAT).

11.2 Save as disclosed in this document, no person (excluding professional advisers otherwise disclosed in this document and trade suppliers) has:

- (a) received directly or indirectly from the Company within twelve months preceding the Company's application for Admission; or
- (b) entered into contractual arrangements for (not otherwise disclosed in this document) to receive, directly or indirectly, from the Company on or after Admission any of the following:
  - (i) fees totalling £10,000 or more; or
  - (ii) securities in the Company with a value of £10,000 or more calculated by reference to the current mid-market price of the Ordinary Shares; or
  - (iii) any other benefit with a value of £10,000 or more at the date of Admission.

11.3 Save for the Acquisition and as disclosed in this document, there has been no significant change in the trading or financial position of the IGas Group since the last published unaudited condensed set of financial statements for the six months ended 30 June 2011 of the Company.

11.4 Save for the Acquisition and as disclosed in this document, there has been no significant change in the trading or financial position of the Star Group since 31 March 2011.

11.5 Save as disclosed in this document, the Directors are not aware of any exceptional factors which have influenced the Company's activities.

11.6 Ernst & Young LLP of 1 More London Place, London, SE1 2AF audited the group financial statements of IGas Energy plc for the year ended 31 December 2010 included in Part 5 of this document. Ernst & Young LLP is registered to carry out audit work for the Institute of Chartered Accountants of England and Wales.

11.7 Save as disclosed in this document, there are no patents, licences, industrial, commercial or financial contracts or new manufacturing processes which are material to the business or profitability of the Company.

11.8 Save as disclosed in this document and in particular at paragraph 7.3 of Part 9 of this document, there have been no related party transactions entered into by the Company prior to the date of this document.

11.9 The Company's accounting reference date has been changed from 31 December to 31 March.



- 11.10 There has been no public takeover bid for the whole or any part of the share capital of the Company or any member of the Star Group prior to the date of this document. There are no mandatory takeover bids and/or squeeze out and sell out rules in relation to the Ordinary Shares.
- 11.11 Save as disclosed in this document there are no exceptional factors which have influenced the IGas Group's activities.
- 11.12 There are no arrangements in place under which future dividends are to be waived or agreed to be waived.
- 11.13 The Company operates within the natural gas market focusing on the production and marketing of domestically sourced gas from unconventional sources such as CBM. The company operates solely within the United Kingdom, with operations across the north west of England and the North Wales coast.
- The revenue in the audited Annual Report and Accounts for the year ended 2010 related to the supply of CBM services and expertise under management service contracts (£536 thousand), to the supply of electricity generation services and to sales of electricity associated with CBM production (£120 thousand).
- All Group revenue which represents turnover in the audited Annual Report and Accounts for the year ended 2009 related to the supply of CBM services and expertise under management service contracts (£828 thousand). £816 thousand of the Group's revenue was derived from a single customer.
- All Group revenue which represents turnover in the audited Annual Report and Accounts for the year ended 2008 related to the supply of CBM services and expertise under management service contracts (£992 thousand).
- 11.14 Save as disclosed at Part 5 of this Admission document, the Directors are unaware of any other principal investments in progress for the financial year ending 31 December 2010 and the Company has not made any other firm commitment in respect of any other investments.
- 11.15 No financial information contained in this document is intended by the Company to represent or constitute a forecast of profits by the Company nor to constitute publication of accounts by it.
- 11.16 Save as disclosed in this Admission document, the Directors are unaware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the Company's prospects for the current financial year.
- 11.17 Senergy Group Limited has given and not withdrawn its written consent to the inclusion of its report in the form set out in Part 4 of this document and the references to such reports in the form and context in which they appear and Senergy, accepts responsibility for the report set out in Part 4 of this document. To the best of the knowledge of Senergy (who have taken all reasonable care to ensure that such is the case), the information contained in the report set out in Part 4 of this document is in accordance with the facts and contains no omission likely to affect its import.
- 11.18 RBS Hoare Govett Limited has given and not withdrawn its written consent to the inclusion in this document of references to its name in the form and context in which it appears.
- 11.19 John Blaymires, Chief Operating Officer of IGas, and a qualified person as defined in the Guidance Note for Mining, Oil and Gas Companies, March 2006, of the London Stock Exchange, has reviewed and approved the technical information contained in this document. Mr Blaymires has more than 28 years relevant experience.
- 11.20 Where information in this document is indicated as having been sourced from a third party, such information has been accurately reproduced and as far as the Company is aware from information published by the relevant third parties, and no facts have been omitted from this document which would render the information inaccurate or misleading.

## **12. Documents available for inspection**

A copy of this Admission document is available at the Company's website [www.iglasplc.com](http://www.iglasplc.com).

Dated: 22 November 2011

## PART 10

### DEFINITIONS

The following definitions apply throughout this document, unless the context requires otherwise:

“Acquisition”	the proposed acquisition by the Company of the entire issued share capital of Star pursuant to the Acquisition Agreement
“Acquisition Agreement”	the conditional agreement between Petronas and IGas dated 16 September 2011 the terms of which are summarised in paragraph 7.1.7 of Part 9
“Acquisition Price”	£110,000,000
“Act” or “Companies Act”	the Companies Act 2006
“Admission”	the re-admission of the Ordinary Shares to trading on AIM becoming effective in accordance with the AIM Rules for Companies
“AIM”	Alternative Investment Market, a market of the London Stock Exchange
“AIM Rules for Companies”	the rules for AIM companies issued by the London Stock Exchange (as amended from time to time)
“AIM Rules for Nominated Advisers”	the rules for nominated advisers issued by the London Stock Exchange (as amended from time to time)
“Articles”	the articles of association of the Company
“Board”	the board of Directors of the Company, including a duly constituted committee of such Directors
“Brent Crude Oil”	a light sweet crude oil from the North Sea off the coast of England between Norway and Denmark, which is a blend of oil from 15 different oil fields
“CBM”	Coal Bed Methane
“City Code”	the City Code on Takeovers and Mergers as published by the United Kingdom Takeover Panel from time to time
“Combined Code”	the “Combined Code on Corporate Governance” published in July 2003 by the Financial Reporting Council
“Company” or “IGas”	IGas Energy plc, a company incorporated in England and Wales with company number 4981279
“Completion”	means completion of the Acquisition in accordance with the terms of the Acquisition Agreement
“Conditions”	the conditions to the Acquisition being (i) the passing of the Resolutions at the General Meeting; (ii) Admission; and (iii) the completion of the corporate reorganisation of Star Energy Group Limited which includes obtaining certain regulatory approvals in connection with the reorganisation
“CPR”	the competent persons report drafted by Senergy dated 15 November 2011 and included at Part 4 of this document
“Credit Agreement”	the senior secured facility agreement dated 21 November 2011 between Macquarie and the Company, the IGas Subsidiaries and the Star Subsidiaries (excluding Larchford Limited and Star Energy Oil UK Limited, a summary of which is set out in paragraph 7.1.2 of Part 9 of this document
“CREST”	the computerised settlement system (as defined in the CREST Regulations) in the UK operated by Euroclear which facilitates the transfer of title to shares in uncertificated form (as defined in the CREST Regulations)

"CREST Regulations"	the Uncertificated Securities Regulations 2001 (SI 2001/3755)
"DECC"	The Department for Energy and Climate Change
"Debentures"	the security documents designated in paragraph 7.1.3 of Part 9 of this document
"Directors"	the directors of the Company, whose names are set out on page 4 of this document
"Enlarged Group"	following Completion, the Company, the IGas Subsidiaries and the Star Group to be acquired pursuant to the Acquisition
"Euroclear"	Euroclear UK & Ireland Limited
"Financial Reporting Council"	The Financial Reporting Council of the United Kingdom
"Form of Proxy"	the form of proxy which is enclosed with this document for use by holders of Ordinary Shares in connection with the General Meeting
"FSA"	the Financial Services Authority, acting through the United Kingdom Listing Authority, in its capacity as the competent authority for the purposes of Part VI of the FSMA
"FSMA"	the Financial Services and Markets Act 2000
"Gas Offtake Agreement"	The agreement between Petronas and IGas dated 16 September 2011 pursuant to which IGas is obligated to sell certain amounts of its gas production to Petronas
"General Meeting" or "GM"	The general meeting of the Company to be held at 10:45 a.m. on 9 December 2011, notice of which is attached to this document
"Guarantee Agreement"	The Agreement between IGas Energy plc, Island Gas Limited, Island Gas Operations Limited, IGas Exploration UK Limited and Macquarie Bank Limited dated 31 October 2011, the terms of which are summarised in paragraph 7.1.5 of Part 9
"Hedging Agreements"	the Security Agreement, Guarantee Agreement and ISDA Master Agreement
"HMRC"	Her Majesty's Revenue & Customs
"IGas Group"	IGas and the IGas Subsidiaries
"IGas Subsidiaries"	Island Gas Limited, Island Gas Operations Limited and IGas Exploration UK Limited
"ISDA Master Agreement"	the agreement between IGas Energy plc and Macquarie Bank Limited dated 31 October 2011, the terms of which are summarised in paragraph 7.1.4 of Part 9
"Issued Share Capital"	the entire issued share capital of the Company as at the date of this document
"London Stock Exchange"	London Stock Exchange plc
"Licence"	any production, mining, methane, drainage, exploration, appraisal or development licence as detailed more fully in Part 11 of this Admission document.
"Macquarie"	Macquarie Bank Limited
"Official List"	the official list of the London Stock Exchange
"Oil Supply Agreements"	the oil supply agreements between Saturn Weald Basin Limited and Esso Petroleum Company Limited, and Saturn Oil & Gas Limited and Conoco Phillips Limited.
"Ordinary Shares"	Ordinary shares with a nominal value of 50 pence each in the capital of the Company
"Petronas"	Petronas International Corporation Limited

“Resolution” or “Resolutions”	all, or any of the resolutions set out in the Notice of General Meeting attached to this document, as the context may require
“Security Agreement”	the agreement between IGas Energy plc, Island Gas Limited, Island Gas Operations Limited, IGas Exploration UK Limited and Macquarie Bank Limited dated 31 October, 2011, the terms of which are summarised in paragraph 7.1.6 of Part 9
“Star”	Star Energy Group Limited, a company incorporated in England and Wales with company number 5054503
“Star Group”	Star, and the Star Subsidiaries being acquired pursuant to the Acquisition
“Star Subsidiaries”	Star Energy Limited, Star Energy (East Midlands) Limited, Star Energy Oil & Gas Limited, Star Energy Oil UK Limited, Star Energy Weald Basin Limited and the 33% interest in the issued share capital of Larchford Limited
“Shareholders”	the holders of Ordinary Shares of the Company
“Share Schemes”	together the IGas Energy plc Super Long Term Incentive Plan, the 2011 LTIP and the IGas Energy plc Share Option Plan, details of which are set out in paragraph 6 of Part 8
“Sterling” or “£”	the legal currency of the UK
“Takeover Panel”	the UK Panel on Takeovers and Mergers
“UK”	the United Kingdom of Great Britain and Northern Ireland
“US” or “United States”	the United States of America, its territories and possessions, any state of the United States of America and the District of Columbia
“Warrant Instrument”	the warrant instrument to acquire up to 21,286,646 Ordinary Shares at a price of 55.8p per Ordinary Share, the terms of which are set out in paragraph 7.1.1 of Part 9 of this document
“Warrants”	the warrants to be issued to Macquarie pursuant to the Warrant Instrument

Unless otherwise stated, all times referred to in this document are references to the time in London.

All references to legislation in this document are to the legislation of England and Wales unless the contrary is indicated. Any reference to any provision of any legislation shall include any amendment, modification, re-enactment or extension thereof.

Words importing the singular shall include the plural and vice versa, and words importing the masculine gender shall include the feminine or neutral gender.

For the purpose of this document, “subsidiary”, “subsidiary undertaking” and “undertaking” have the meanings respectively given to them by the Companies Act and “associated undertaking” has the meaning given to it by paragraph 19 of schedule 6 of the large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (but ignoring for this purpose sub- paragraph 1(b) thereof).

References to “£”, “sterling”, “p” and “pence” are to the lawful currency of the United Kingdom.

## PART 11

### GLOSSARY OF TECHNICAL TERMS

The following definitions apply throughout this document, unless the context requires otherwise

2C resources	best estimate scenario of Contingent Resources (1C would be low and 3C high)
boe	Barrels of Oil Equivalent
boepd	Barrels of Oil Equivalent per day
bopd	Barrels of oil per day
Bscf	Billions of standard cubic feet
CBM	Coal Bed Methane
Conoco	Conoco Phillips Limited
Contingent Resources	Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects but which are not currently considered to be commercially recoverable due to one or more contingencies.
DECC	The Department for Energy and Climate Change
Esso	Esso Petroleum Company Limited
GIIP	gas initially in place
LDZ	Local distribution zone
Mcf:	1000 cubic feet
MMboe	Millions of barrels of oil equivalent
mmcf/d	millions of cubic feet per day (of gas)
PEDL	Petroleum Exploration and Development Licence
PRMS	Petroleum Resources Management System
Probable Reserves	are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.
Producing	Related to development projects (eg wells and platforms): Active facilities, currently involved in the extraction (production) of hydrocarbons from discovered reservoirs.
Prospective Resources	are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated

	with recoverable estimates assuming their discovery and development and may be subclassified based on project maturity
Proved plus Probable plus Possible Reserves	are those additional reserves which analysis of geo-science and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high estimate scenario. In this context, when probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate.
Proved Reserves	are those quantities of petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.
Proved plus Probable Reserves	Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.
Reserves	are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status
Stb/d	Stock tank barrels per day
TCF	Trillion Cubic Feet
Therms	1 Therm = 100 cubic feet

## **NOTE ON LICENCE TYPES**

### **PRODUCTION LICENCES**

All modern production Licences run for three successive periods, or “Terms”:

- The initial term; after which, if the agreed work programme has been completed and if a minimum amount of acreage has been relinquished, the Licence may continue into a second term;
- The second term; after which, if a development plan has been approved and if all of the acreage outside that development has been relinquished, the Licence may continue into a third term; and
- The third term; which runs for an extended period to allow production.

The terms are of different lengths according to the licence type, and there is an escalating annual rental.

While each term is commonly associated with a particular phase of a field’s life cycle, the licence gives the same rights from beginning to end; so nothing in the licence would bar production during the initial term, for example, if the Licensee were to move that fast.

All Seaward Production Licences have the prefix “P” (e.g. P001) whereas Landward Production Licences have a range of prefixes (see below).

#### **The Traditional Licence**

This is the familiar Seaward Production Licence that has been in use since offshore licensing began. Most of the approximately 1700 licences issued since seaward licensing began have been Traditional Licences.

An applicant must prove technical/environmental competence and financial capacity before being offered a Traditional Licence.

- The initial term lasts for four years.
- The second term lasts for four years.
- The third term lasts for 18 years.
- The mandatory relinquishment at the end of the initial term is of 50%.

#### **The Promote Licence**

This is a variant of the Seaward Production Licence that is designed to allow small and start-up companies to get a production licence first and attract the necessary operating and financial capacity later. The difference shows itself more in the application process than in the licence itself, except that the annual rental rate on a Promote Licence is reduced by 90% for two years. The licence will be drafted so as to require financial technical and environmental capacity to be in place, and a firm drilling (or agreed equivalent equally substantive activity) commitment to have been made, by the end of the second year, or the licence will expire at that time.

Applicants need not prove technical/ environmental competence or financial capacity before award but they must do so within two years of the licence’s start date if they are to keep the licence, and they will not be permitted to operate until they have done so.

- The initial term lasts for four years.
- The second term lasts for four years.
- The third term lasts for 18 years.
- The mandatory relinquishment at the end of the initial term is of 50%.

#### **The Petroleum Exploration and Development Licence**

This is the full name of the Landward Production Licence. It is similar in broad terms to the “Traditional” Seaward Production Licence, although for historical and practical reasons there are many differences in detail.

Applicants must prove technical competence, awareness of environmental issues and financial capacity before being offered a PEDL.

- The initial term lasts for six years.
- The second term lasts for five years.



- The third term lasts for 20 years. Applicants must prove technical, environmental and financial capacity.
- The mandatory relinquishment at the end of the initial term is of 50%.

### **Supplementary Seismic Survey Licences**

If the operator of a landward Production Licence wants to conduct a seismic survey right up to the boundary of his licensed area, he may have to operate his survey equipment a little way outside it. If that means working in unlicensed acreage, he can seek a Supplementary Seismic Survey Licence (SSSL), which lasts for one year and covers a kilometre-wide strip adjacent to the existing Production Licence. A SSSL will only be issued to the operator of the Production Licence, not to its partners. DECC needs to be told the coordinates of the additional area. Any new Production Licence that is subsequently issued over the same acreage will automatically terminate the SSSL. If there is only a partial overlap, the SSSL will cease to operate on that overlap.

### **(Seaward) Exploration Licences**

A company that does not need rights to drill or produce can apply instead for a Seaward Exploration Licence. This is cheaper than a Production Licence and it covers all acreage outside those areas covered at any given moment by Production Licences. It is particularly aimed at seismic contractors who wish to gather data to sell it, rather than to exploit geological resources themselves. They cost a flat rate of £2,000 per year.

An Exploration Licence covers non-intrusive exploration whether it is carried out for the sake of hydrocarbon production, gas storage or Carbon Capture and Sequestration, or for any combination of them.

If the holder of an Exploration Licence wants to explore acreage covered by a Petroleum Licence, it will need the agreement of the holder of the Production Licence.

### **Older Types of Onshore Licence**

Until 1996, the Government issued a sequence of separate licences for each stage of an onshore field's life: an Exploration Licence, an Appraisal Licence, a Development Licence and a Production Licence. The Government introduced PEDLs at the Eighth Licensing Round (in 1996) to reduce the bureaucratic burden of issuing a series of Licences. DECC no longer issues any licences of these types but a number of them, and of even older licences, are still in force.

### **Mining Licences (ML)**

Dating from the 1950s, these are the oldest licences still in force.

### **Exploration Licences (XL or EXL), Production Licences (PL), Appraisal Licences (AL) and Development Licences (DL)**

The Petroleum (Production) (Landward Areas) Regulations 1984 replaced the previous system of two types of licence (Exploration Licences (XL) and Production Licences (PL)), with three: a new type of Exploration Licence (EXL), Appraisal Licences (AL) and Development Licences (DL). The Department of Energy issued EXLs from the First Onshore Licensing Round (1986) until the Sixth (1992). Each Exploration Licence (EXL) ran for six years and carried an agreed Work Programme (just like the six-year Initial Term of a modern PEDL). The five-year Appraisal Licence gave the Licensee time to prepare a Development Programme and get long-term planning permission. Only if both of those were in place would the Department consider issuing a 20-year Development Licence. Those EXLs that have not expired or been relinquished by now have all been converted to the same terms as a PEDL, but their names will not have been changed so they are still called – for instance – EXL141 or EXL169.

### **Methane Drainage Licences (MDL)**

Many coalmines vent methane to the atmosphere, or else accumulate methane that must be dealt with by the mine-owner. Either way, the methane can create a health & safety issue and (as a very powerful greenhouse gas) an environmental problem.

To capture the drained methane requires a Licence under the Petroleum Act 1998, but safety is the Government's first priority and to regularise methane drainage we are generally prepared to issue a Methane Drainage Licence (MDL) for a nominal fee.



An MDL grants permission to get natural gas “*in the course of operations for making and keeping safe mines whether or not disused*”. It grants no exclusive rights, so it can overlap geographically with one or more PEDLs. MDLs generally cover much smaller areas than PEDLs – typically each covers one mine, although the Coal Authority holds a licence that covers the whole country.

### **Licence rentals**

All Production Licences carry a requirement for an annual rental, proportional to the area that the licence covers at each anniversary. In each case, the rental starts at a low rate (per square kilometre) and escalates to a maximum rate after several years (typically escalating over a period between 10 and 20 years).

The purpose of the rental is to incentivise the surrender of acreage that the licensee is not interested in.

The rental is payable for the acreage held at the licence anniversary, so DECC will not make pro rata refunds where the Licensee relinquishes the licence, or surrenders acreage, between anniversaries.

Promote and Frontier Licences start off with two to three years at a very low rate compared to Traditional Licences (£151km<sup>2</sup> instead of £150km<sup>2</sup>).

### **Flaring and venting of methane**

Under the Energy Act 1976, as amended by the Gas Act 1986, the Secretary of State’s consent is required to dispose of natural gas – (whether at source or elsewhere) by flaring or by releasing it unignited into the atmosphere.

## PART 12

### NOTICE OF GENERAL MEETING

#### IGAS ENERGY PLC

*(Incorporated and registered in England and Wales with Registered No. 04981279)*

### NOTICE OF GENERAL MEETING

**NOTICE IS HEREBY GIVEN** that a general meeting of IGas Energy plc (the "Company") will be held at the offices of Morrison & Foerster (UK) LLP, CityPoint, One Ropemaker Street, London EC2Y 9AW at 10:45 a.m. on 9 December 2011 for the purposes of considering and, if thought fit, passing the following Resolutions of which Resolutions 1 and 2 will be proposed as ordinary resolutions and Resolution 3 will be proposed as a special resolution.

### ORDINARY RESOLUTIONS

#### **Resolution 1:**

##### **Approval of Aquisition:**

THAT subject to and conditional upon the passing of Resolution 2 the acquisition by the Company of the entire issued share capital of Star Energy Group Limited in accordance with the terms of an agreement summarised in paragraph 7.1.7 of Part 9 of the admission document dated 22 November 2011 to which this notice is attached, and a copy of which is produced to the meeting and initialled by the Chairman for the purposes of identification only, be and is hereby approved and that the Directors be and are hereby authorised to complete such agreement, subject to such immaterial modifications as the Directors may deem appropriate, and to execute, sign and do all such other documents, deeds, acts or things as may be necessary or desirable to complete the aforesaid transaction.

#### **Resolution 2:**

##### **Approval of Increase in Borrowing Limit under article 43.2 of the Articles of Association and Approval of the Credit Agreement:**

THAT, pursuant to the provisions of article 43.2 of the Articles of Association of the Company, the restriction on the borrowing powers of the Company be increased to an amount equal to 5 times the Adjusted Capital and Reserves (as defined in article 43.3 of the Articles of Association of the Company) and that the entry by the Company into the Credit Agreement summarised in paragraph 7.1.2 of Part 9 of the admission document dated 22 November 2011 to which this notice is attached, a copy of which is produced to the meeting and initialled by the Chairman for the purposes of identification only, and the borrowing under such agreement of up to \$150,000,000 be and is hereby approved and that the Directors be and are hereby authorised to complete such agreement, subject to such immaterial modifications as the Directors may deem appropriate, and to execute, sign and do all such other documents, deeds, acts or things as may be necessary or desirable to complete the aforesaid transaction.

### SPECIAL RESOLUTION

#### **Resolution 3:**

##### **To disapply statutory pre-emption rights:**

(3) That the Directors are empowered pursuant to section 570 of the 2006 Act to allot equity securities (as defined by section 560 of the 2006 Act) for cash pursuant to the authority previously conferred at the last annual general meeting as if section 561 of the 2006 Act did not apply to any such allotment. This power:

- (a) expires 15 months after the date of the passing of this Resolution or at the conclusion of the next annual general meeting of the Company following the passing of this Resolution, whichever occurs first (unless previously revoked or varied from time to time by special

resolution) but so that the Company may before such expiry, revocation or variation make an offer or agreement which would or might require equity securities to be allotted after such expiry, revocation or variation and the Directors may allot equity securities in pursuance of such offer or agreement as if such power had not expired or been revoked or varied; and

- (b) is limited to save in the case of an allotment in connection with the company's long term incentive plans:
  - (i) the allotment of relevant equity securities pursuant to a rights issue, open offer, scrip dividend scheme or other pre-emptive offer or scheme, which is in each case in favour of holders of ordinary shares and any other persons who are entitled to participate in such issue, offer or scheme where the equity securities offered to each such holder and other person are proportionate (as nearly as may be) to the respective numbers of ordinary shares held or deemed to be held by them for the purposes of their inclusion in such issue, offer or scheme on the record date applicable thereto, but subject to such exclusions or other arrangements as the Directors may deem fit or expedient to deal with:
    - (aa) fractional entitlements;
    - (bb) legal or practical problems under the laws of any overseas territory;
    - (cc) the requirements of any regulatory body or stock exchange in any territory;
    - (dd) directions from any holders of ordinary shares or other persons to deal in some other manner with their respective entitlements; or
    - (ee) any other matter whatever, which the Directors consider to require such exclusions or other arrangements with the ability for the Directors to allot relevant equity securities not taken up, to any person as they may think fit;
  - (ii) the allotment of relevant equity securities for cash otherwise than pursuant to subparagraph (i) up to an aggregate maximum nominal amount of £12,024,279, which represents 15 per cent. of presently issued shares.
- (c) is limited, in the case of an allotment in connection with the company's long term incentive plans, to the allotment of relevant equity securities for cash up to an aggregate maximum nominal amount of £2,672,062.

22 November 2011

Registered Office:  
7 Down Street  
London  
W1J 8AJ

**By Order of the Board**  
MoFo Secretaries Limited  
*Company Secretary*

Notes:

1. A member entitled to attend and vote at the meeting may appoint one or more proxies to attend and, on a poll, vote instead of him. A proxy need not also be a member. A Form of Proxy is enclosed.
2. The Form of Proxy, if used, and the power of attorney or other authority (if any) under which it is signed or a certified copy of such power or authority must be lodged at Computershare Investor Services PLC at The Pavilions, Bridgwater Road, Bristol BS99 6ZY, or, (during normal business hours) by hand, to Computershare Investor Services PLC at The Pavilions, Bridgwater Road, Bristol BS99 6ZY not less than 48 hours before the time fixed for holding the meeting.
3. Completing and returning a Form of Proxy will not preclude a member from attending in person at the meeting and voting should he or she wish to do so.

4. The Form of the Proxy must be signed and dated by the shareholder or his/her attorney duly authorised in writing, if the shareholder is a company, it may execute under its common seal, by the signature of a director and its secretary or two directors or other authorised signatories in the name of the company or by the signature of a duly authorised officer or attorney. In the case of joint holders, the vote of the senior who tenders a vote, whether in person or in proxy, will be accepted to the exclusion of the votes of the other joint holders and for this purpose seniority will be determined by the order in which the names stand in the register of members in respect to the joint holding. Names of all joint holders should be stated.
5. Members who hold Ordinary Shares in the Company in uncertificated form must have been entered on the Company's register of members by 6.00 p.m. on 7 December 2011 in order to be entitled to attend and vote at the meeting. Such members may only vote at the meeting in respect of Ordinary Shares in the Company held at the time, if the meeting is adjourned, the time by which a person must be entered on the register of members in order to have the right to attend or vote at the adjourned meeting is 48 hours before the date fixed for the adjourned meeting. Changes to entries on the register of members after such times shall be disregarded in determining the rights of any person to attend or vote at the meeting.
6. In the absence of instructions, the person appointed proxy may vote or abstain from voting as he or she thinks fit on the Resolutions and, unless instructed otherwise, the person appointed proxy may also vote or abstain from voting as he or she thinks fit on any other business (including amendments to any Resolution) which may properly come before the meeting.
7. If you wish to appoint as your proxy someone other than the Chairman of the meeting, cross out the words "the Chairman of the meeting" in the Form of Proxy and write on the dotted line the full name and address of your proxy. The change should be initialled.
8. If two or more valid Forms of Proxy are delivered in respect of the same Ordinary Share, the one which was delivered last (regardless of its date or the date of its execution) will be valid, to the exclusion of any ones previously delivered.



