

OGA Operator Competency

March 2019



Company Details

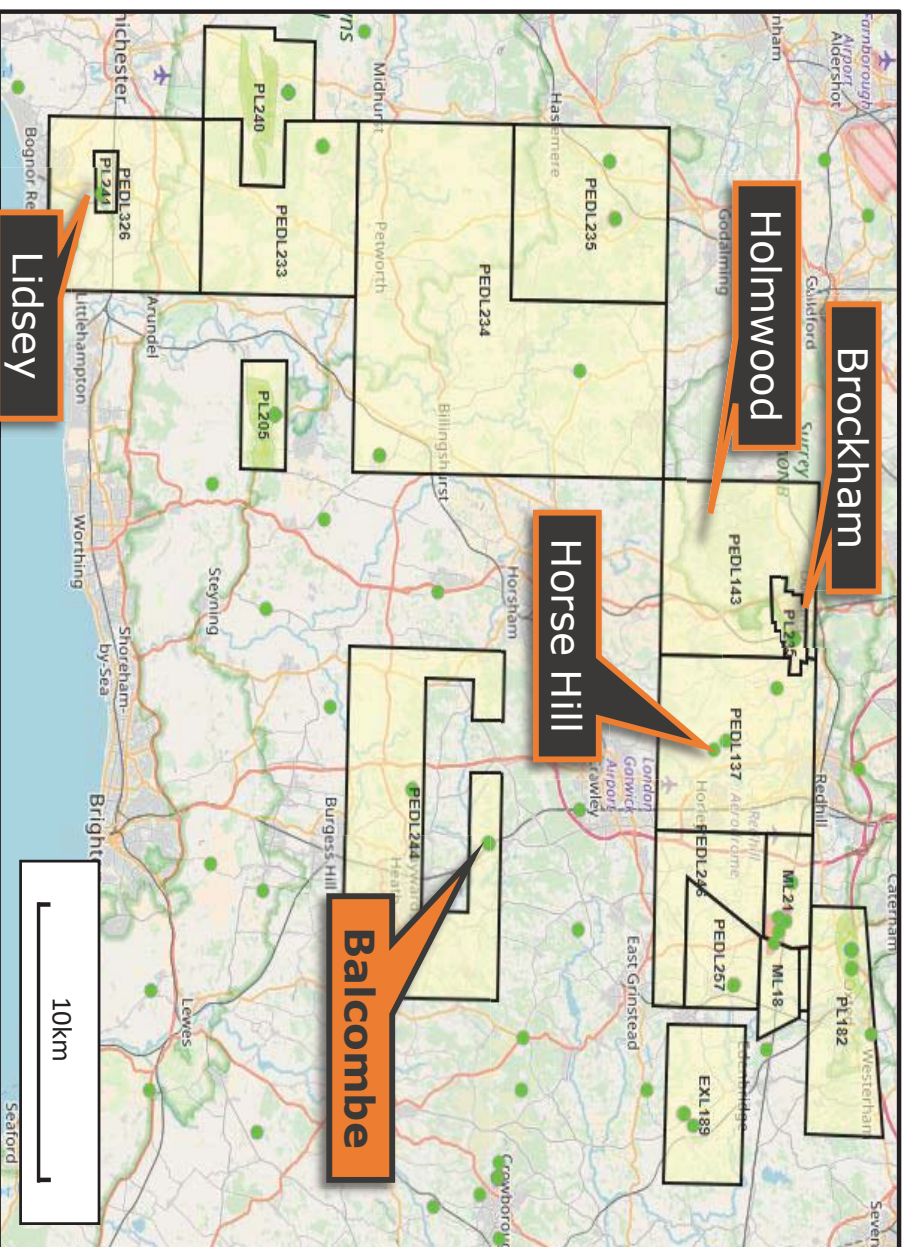
- Angus Energy plc.
- Incorporated in England & Wales on 1 June 2015, with registered number 09616076
- Registered office:
 - Angus Energy Plc.
 - Building 3, Chiswick Park
 - 566 Chiswick High Street
 - London
 - W4 5YA
 - UK
- Wholly Owned Subsidiaries:
 - Angus Energy Holding UK Ltd (SC366110)
 - Angus Energy Weald Basin No. 1 Ltd (SC427386)
 - Angus Energy Weald Basis No. 2 Ltd (6975039)
 - **Angus Energy Weald Basis No. 3 Ltd (SC055329) – OGA APPROVED OPERATOR**
- Website: www.angusenergy.co.uk

OGA Primary Contacts

- Board Level:
 - George Lucan
- Management Level:
 -
 - Jonathan Tidswell-Pretorius
- Contact:
 - Tel: +44 (0) 208 899 6380
 - Email: info:angusenergy.co.uk
 - Head Office:
 - Building 3, Chiswick Park
 - 566 Chiswick High Street
 - London
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 - UK

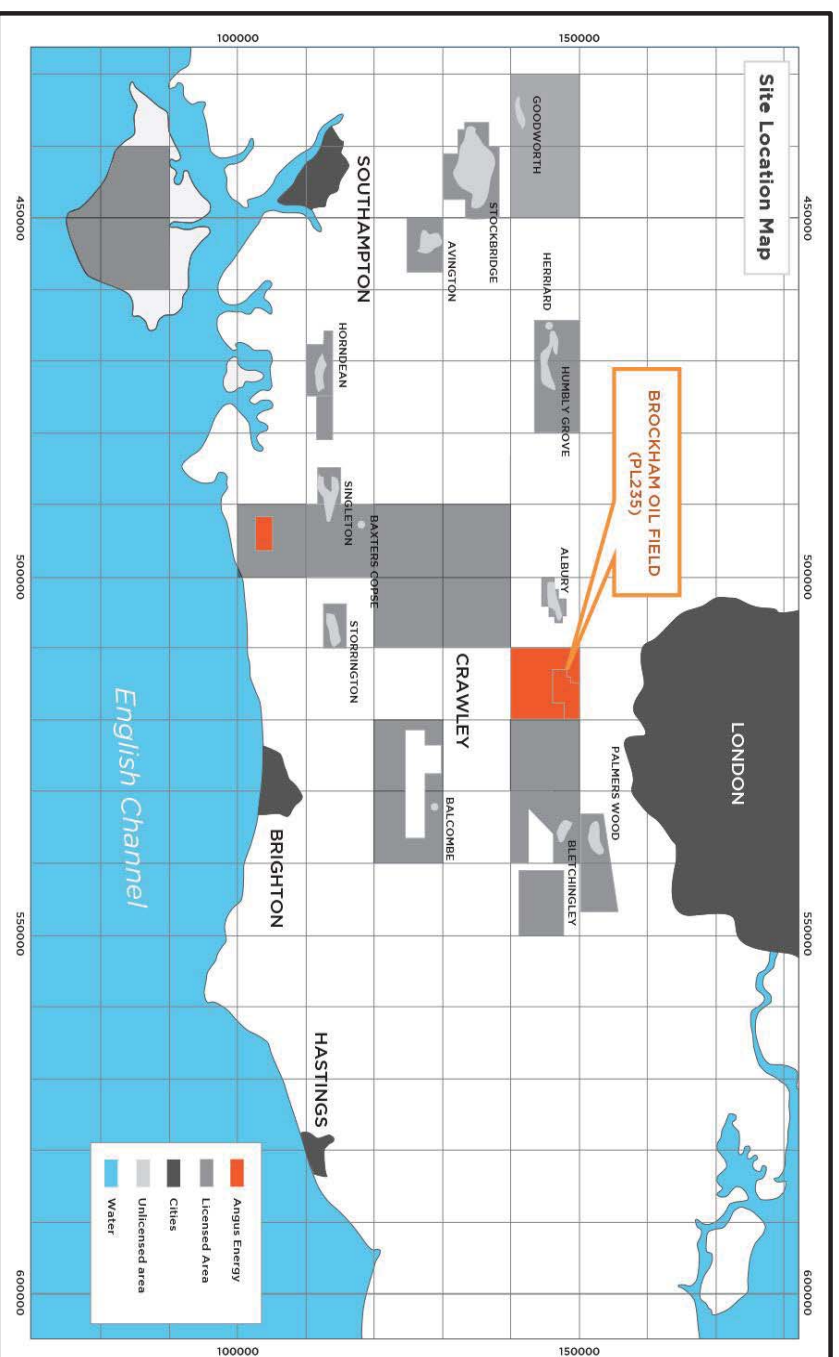
Onshore Operations

- Angus Energy is an OGA approved, independent UK onshore oil and gas development, production and operations company. We are focused on leveraging our expertise to advance our portfolio of UK assets as well as acquire, manage and monetise select projects.
- Angus Energy owns and operators conventional production fields in Brockham and Lidsey.
- Angus Energy holds a 12.5% interest in PEDL143 (Holmwood Prospect).
- Angus Energy holds 25% interest in the Balcombe licence PEDL244.



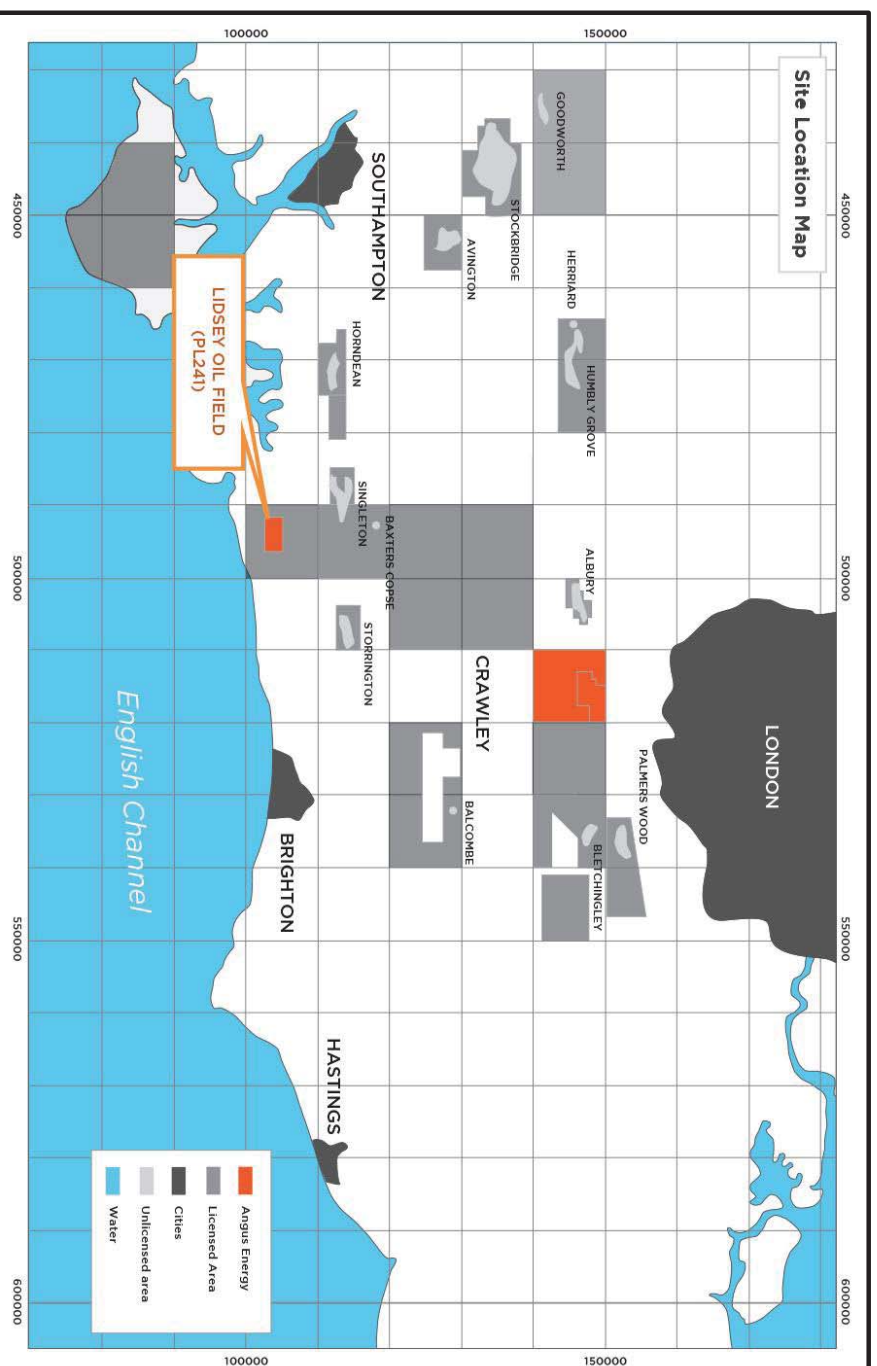
Brockham Oil Field – Key Facts

- License – PL235 (Production License)
- Brockham-X1 discovery well drilling by BP in 1987
- Majority Partner – Angus Energy Plc
- Field Operator – Angus Energy Plc
- Angus 55% Licence interest (65% following completion of acquisition of 10% Terrain Energy Ltd. interest)
- License area 8.9 km²



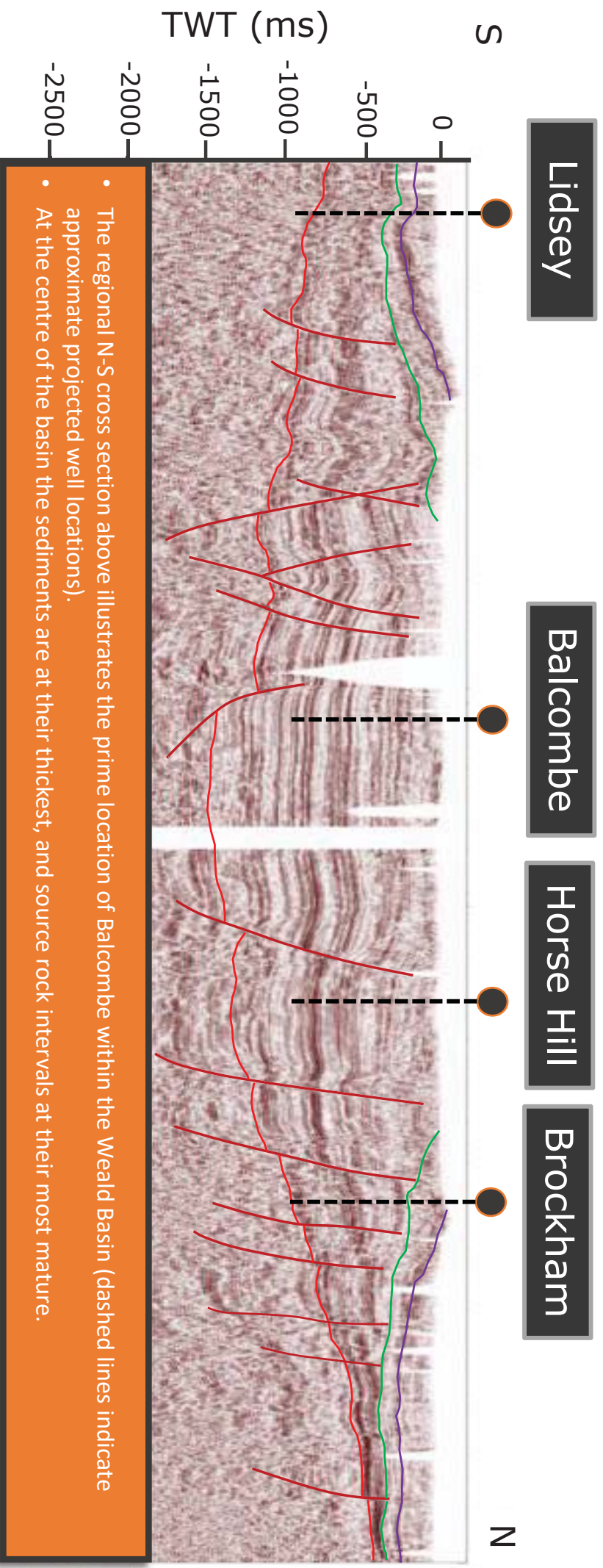
Lidsey Oil Field – Key Facts

- License – PL241 (Production License)
- Majority Partner – Angus Energy Plc
- Field Operator – Angus Energy Plc
- Angus - 50% Licence interest (60% following completion of acquisition of 10% Terrain Energy Ltd. interest)
- License area 5.3 km²



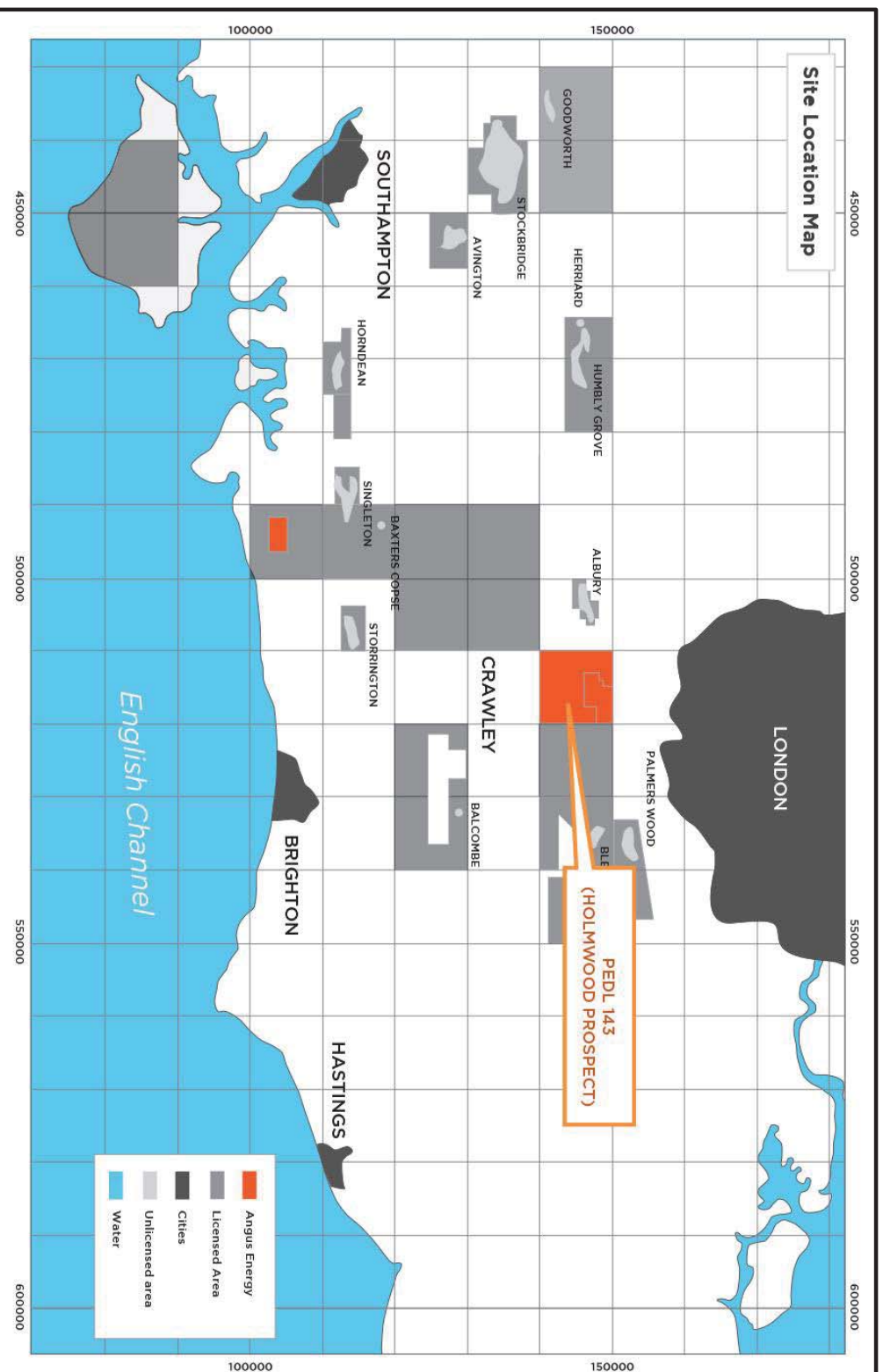
Balcombe – Key Facts

- License – PEDL244
- Balcombe-1 Exploration Wells, drilled in 1986 by Conoco, targeting the Great Oolite and the Mid Kimmeridge Micrite, Sidetracked in 2013 by Cuadrilla Resources, as a horizontal well through the Upper Micrite.
- Planning application approved by WSCC in January 2018 to flow test the well.
- As part of the Balcombe joint venture, Angus acquired a 25% interest in the Balcombe license.

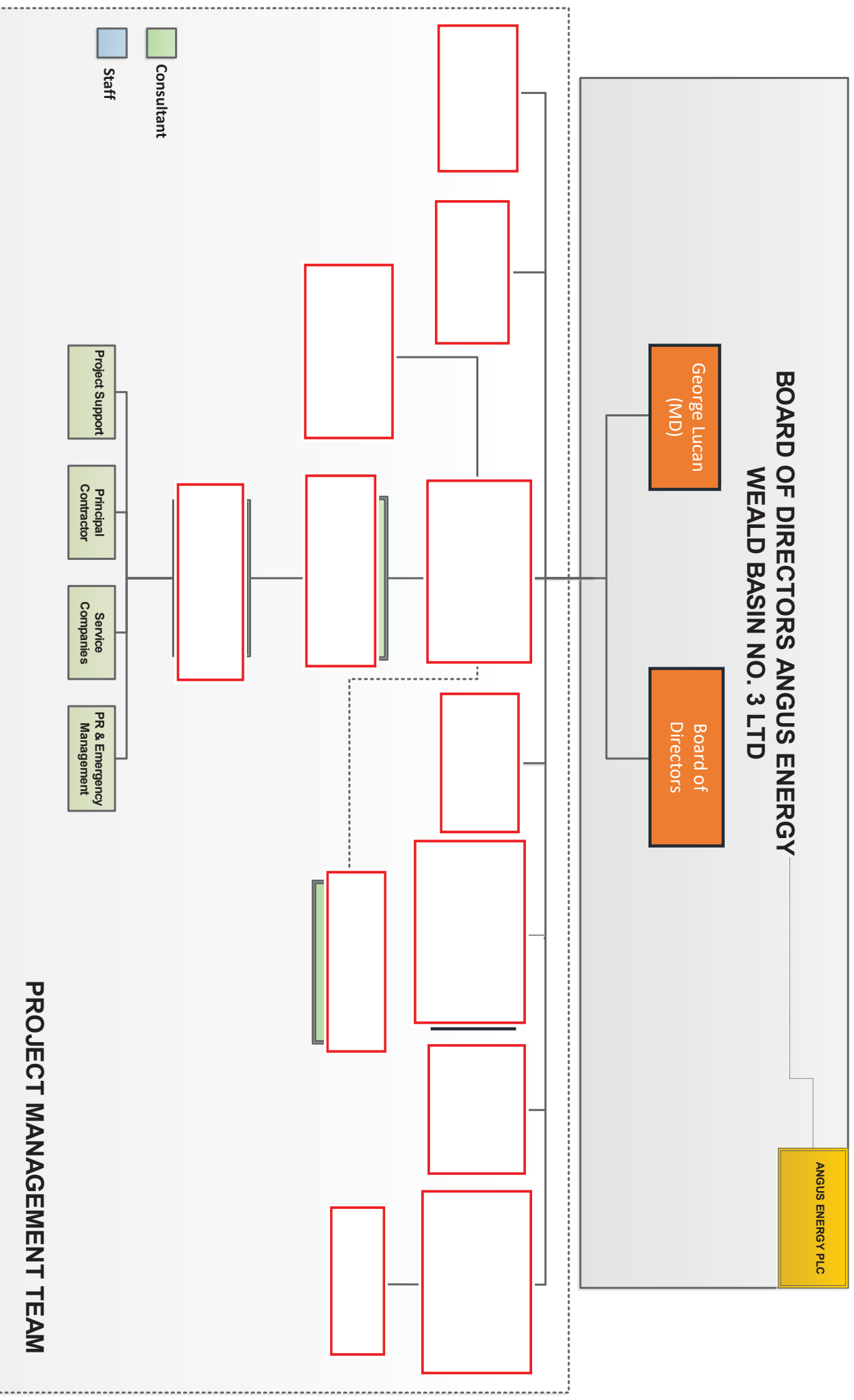


Holmwood Prospect – Key Facts

- License – PLDL143
- Angus Energy interest 12.5%
- License area 91.8 km²



Angus Energy Org Chart

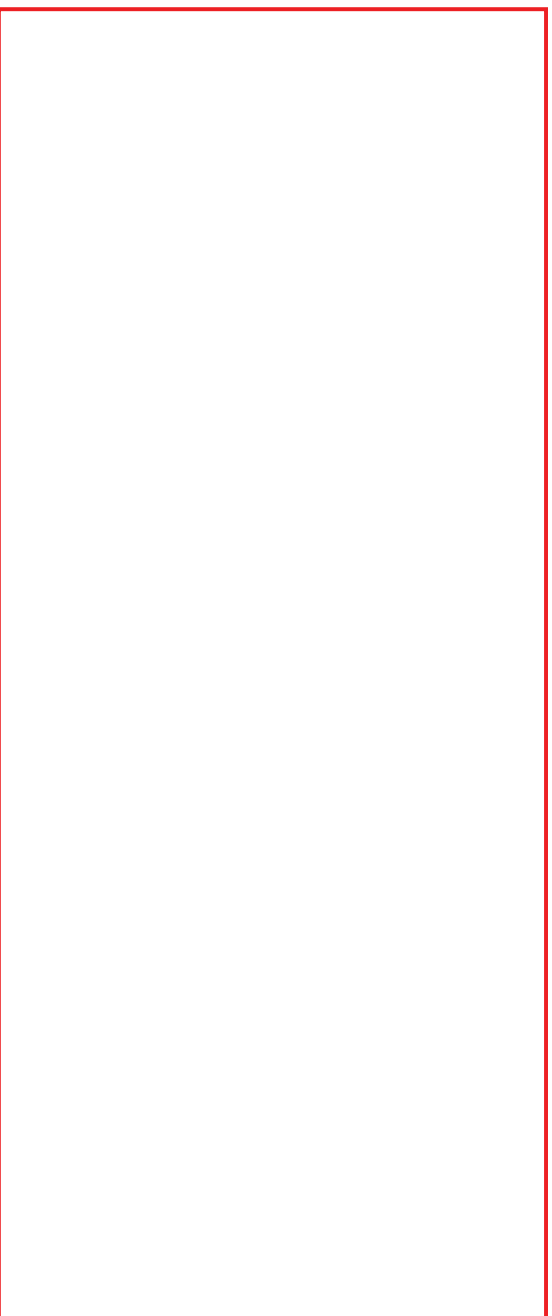


Angus Energy Org Chart – Normal Ops

- **Board Members:**

- George Lucan (Managing Director)
- Andrew Hollis (Technical Director)
- Carlos Fernandes (Finance Director)

- **Senior Management Team:**



Bio – Jonathan Tidswell-Pretorius



Jonathan Tidswell-Pretorius entered the oil industry in 1997 with Halliburton open hole logging services in West Africa (Congo & Angola) before moving to Real Time Logging whilst drilling operations in the North Sea.

He moved from the North Sea to North Africa as a drilling engineer for Wintershall in Libya after which he consulted as a drilling engineer/ drilling supervisor for Talisman Energy UK, Venture Production, Maersk and BG in the North Sea.

He then founded Grafton Petroleum, an Aberdeen / North African based drilling and work over consultancy. In addition he founded Wellmack Resources in 2007, a subsea intervention engineering group.

In August 2009 he resigned from Wellmack Resources maintaining an equity position (now sold) and founded Angus Energy with Dr David Davies and Mr James Manclark.

Jonathan created HHDL in 2013 as a vehicle for this business.

Bio – George Lucan



George Lucan is an experienced finance professional with over thirty years' behind him in debt and equity markets. After graduating from Cambridge University, he began his career at Dresdner Kleinwort Benson where he spent 10 years, mainly within the Structured Finance team, and continued in alternative fund management. He brings, in addition, private equity experience in the fields of energy and alternative energy.

Bio – Andrew Hollis

Andrew Hollis has over 40 years experience in a range of technical and managerial roles in the oil industry for large and small companies in the UK and around the world. He spent 23 years with British Gas E&P in roles ranging from reservoir engineering through to field development planning and offshore petroleum engineering operations. The experience was initially in the UK onshore and offshore but later involves working in Eastern Europe, Russia, Tunisia, Egypt, Thailand, Malaysia and elsewhere. The final role with British gas was a technical Director of their Russian joint venture KomiArcticOil.

From 2000 to the present Andrew has worked as an independent consultant. Key roles during that period have included Technical manager Oxy Vanyoganef in Siberia, New ventures manager Harvest Petroleum Russia, Deputy Director General Benton Oil and Gas Siberia and Deputy DG Kalmeastern Russia. Andrew provided specialist consultancy to Gaffney Cline and Associates in reserves evaluation for 7 years. Most recently Andrew became Drilling Manager for Angus Energy and has been involved in drilling and development planning and the new business strategy and evaluation.

Andrew read Geology at Queen Mary College London and holds patents in downhole tools and offshore platform design. He is a Fellow of the Geological Society.



Risk Management

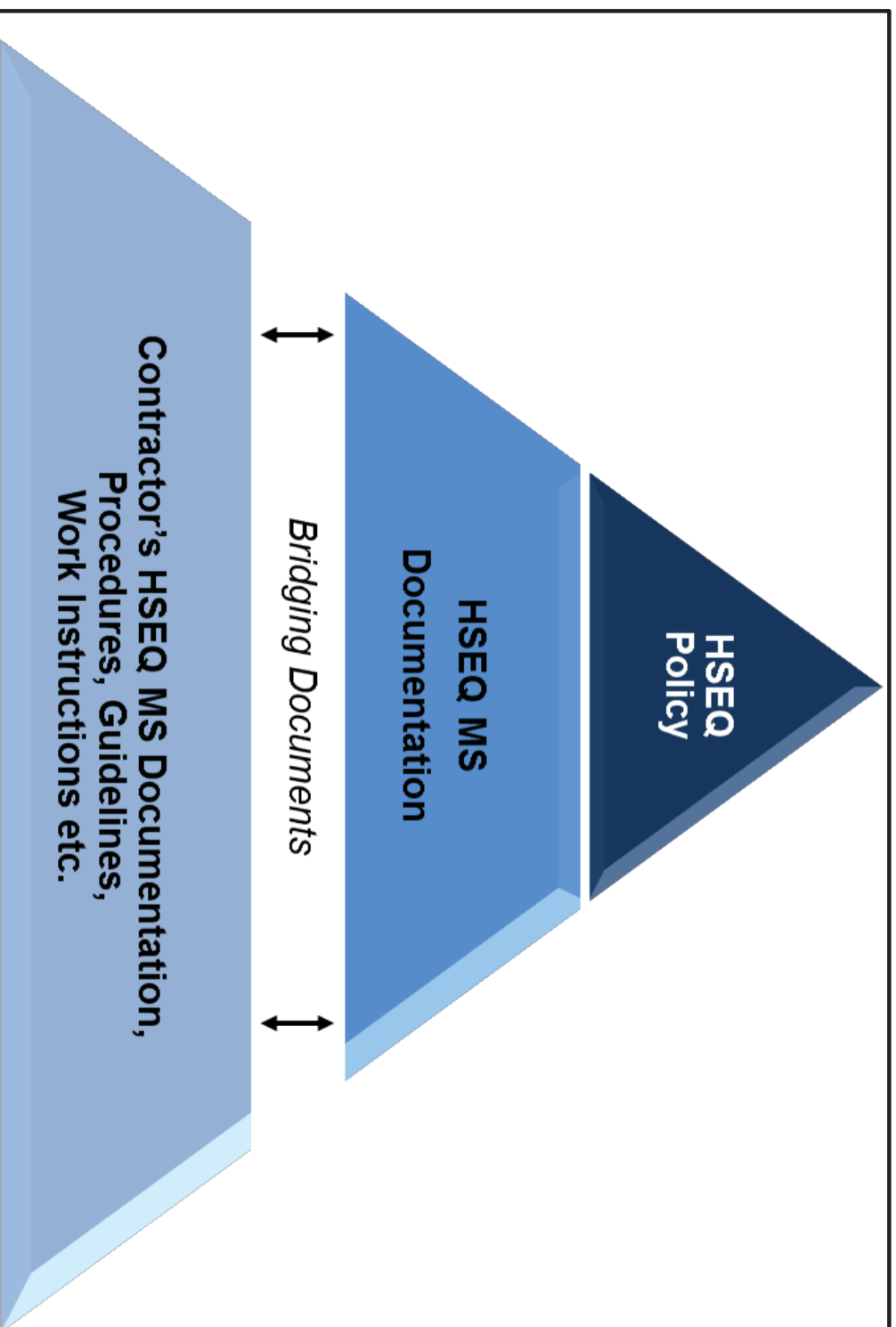


HSE Management

Angus Energy HSE management comprises:

- Fit for Purpose HSE Management System (HSE MS) which:
 - Follows the Plan-Do-Check-Act (PDCA) approach, adapted from BS OHSAS 18001:2007 as recommended by the HSE
 - Follows logic of ISO 14001:2015 as recommended by UKOOG
- The HSEMS documentation consists of:
 - HSE Policy
 - HSE Framework Document
 - Supporting Documentation including Crisis Management Plan
 - Well Specific HSE Documents include:
 - ☐ HSE Risk Assessments
 - ☐ Health & Safety Document as required under Reg 7 of BSOR 1995
 - ☐ Project Specific Objectives and KPIs
 - ☐ Bridging Document (into Contractor's HSE MS)
 - ☐ Pollution Incident Plan
 - ☐ Audit Schedule
- Implementation of the above (e.g. Emergency Response Training & Exercises)

HSE Management Document Framework



HSE MS Framework Document

- Fit for purpose approach, addressing all elements of ISO 14001:2015 & ISO 45001
- For each element there is a high level standard and supporting expectations which provide sufficient detail for implementation
- This presentation will concentrate on the following elements:
 - Legal & Other Requirements
 - Risk Management
 - Contractor Management
 - Emergency Planning
 - Monitoring & Audit

Legal & Other Requirements

STANDARD: All applicable HSE legal requirements and other requirements to which Angus Energy subscribes to (e.g. industry best practise) shall be identified and complied with.

Angus Energy has outsourced the HSE function to a HSE Consultancy, [redacted] who, maintain current records of all UK HSE legislation, regulations, industry standards/guidelines and continuously monitors for updates.

Angus Energy Management:

- Plans its operations in compliance with the legislative and regulative framework
- Is informed and acts in the event of regulatory changes impacting operations

EA Permitting

- Angus Energy's environmental permits for both Brockham and Lidsey wellsite's are undergoing the re-permitting process.
 - Brockham holds production permit EPR/BL9763IN and a Standard Rules Permit (SRP) EPR/FB3104HQ. Angus Energy used the SRP to drill the BR-X4Z well.
 - Lidsey holds production permit EPR/YP3232LL and a Standard Rules Permit (SRP) EPR/EB3606MZ.
- The Balcombe Joint Venture holds the Installation & Mining Waste Permit AB3307XD and Radioactive Substances Regulation Permit PB349DP.

HSE Risk Management

STANDARD: All occupational health and safety hazards, major accident hazards (MAH) and environmental aspects associated with Angus Energy's activities shall be identified, their risks assessed and prioritized, and steps taken to eliminate the risk or manage to As Low As Reasonably Practicable (ALARP) levels.

Schedule risk assessments (including HAZIDS, ENVIDS & HAZOPS) at key stages in the well planning to either assure that risks are acceptable or to recommend additional controls to mitigate risk to acceptable levels.

A Risk Register shall be maintained to document HSE risks and associated controls and a process established to monitor effectiveness of controls and performance.

Significant HSE risks shall be communicated to the workforce (including contractors) and, where appropriate, local communities and other stakeholders. The results of hazard and risk assessments shall be considered in the preparation and review of emergency response plans.

Risk associated with management of change (e.g. changes in the organisation or operational activities) shall be assessed prior to introducing the changes.

HSE Risk Matrix

Likelihood or Frequency	Consequence Severity				
	Insignificant	Significant	Severe	Major	Catastrophic
Almost Certain	Medium	High	High	High	High
Quiet Likely	Medium	Medium	High	High	High
Possible	Low				
Very Likely	Low				
Rare	Low				

Risk Criteria	IRPA value (per annum)	Commentary
INTOLERABLE	$>10^{-5}$	Individual Risk at or above 10^{-5} per year (1 or more fatality in 1000 years) is considered to be unacceptable. This Individual Risk ranking corresponds to the risk of death due to working in high risk groups within relatively risky industries. Thus any activity which has an Individual Risk of fatality of 10^{-5} per year or greater must not be undertaken except in extraordinary circumstances
TOLERABLE	Less than 10^{-5} but greater than 10^{-6}	Risks that lie between 10^{-5} per year (meaning 1 fatality in 1000 years) and 10^{-6} per year (meaning 1 fatality in 100,000 years) are considered to be tolerable. Although these risks are in the tolerable range, efforts must be made to reduce them to levels that are as low as reasonably practicable. The closer the Individual Risk level is to 10^{-6} , the greater the effort should be to reduce it. This is the ALARP principle and it must be clearly demonstrated. The level of Individual Risk is taken as the prime indicator of acceptability.
ACCEPTABLE	$<10^{-6}$	The acceptable limit for Individual Risk of fatality has been set at 10^{-6} per year or less (meaning 1 fatality or less in 100,000 years). Any risk that lies below the lower bound of the tolerable region is broadly acceptable. Note that if a risk is acceptable this does not necessarily preclude the initiation of improvements if they are economic, readily identified and practicable

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Schedule of HSE Risk Assessments

Permitting

- Environmental Risk Assessment
- Hydrogeological Risk Assessment

Well Planning

- HAZID / ENVID
- Well Risk Assessment (including HSE as one of risk contributors)

Well Operations

- Task Risk Analysis as part of the PTW system
- Pre-Task Risk Assessments
- Dynamic Risk Assessments
- Personnel Risk Assessments
- SIMOPS Risk Assessment
- MOC Risk Assessments

Testing

- HAZOP during design / planning of test
- Task Risk Analysis as part of the PTW system

Contractor Management

STANDARD: The contracting of services and the purchase, hire or lease of equipment and materials shall be carried out in a manner which ensures that HSE expectations are met.

- Contractors shall be selected on the basis that they are competent to perform the tasks for which they have been contracted, either as a result of previous performance or through an appropriate selection process which August include an HSE audit prior to contact award.
- Contracts shall contain appropriate HSE provisions to provide assurance that the contractor will meet Angus Energy's HSE expectations.
- The HSE performance of contractors, and specifically their compliance with the obligations specified in contracts, shall be monitored and reported by, for example:
 - The monitoring of contractors' HSE performance;
 - Carrying out inspections/audits where deemed appropriate;
 - Assuring contractors report/investigate all incidents and relevant near misses and close out agreed recommendations for remedial action in a timely manner.
- Where relevant, a contract close out report shall be compiled, including a commentary on HSE performance.

Well Test Contractors

ANGS shall comply with the regulatory framework in managing and controlling our well test contractors e.g. HSW Act 1974, MHSWR 1999, BSOR 95, COSHH 2002 etc.

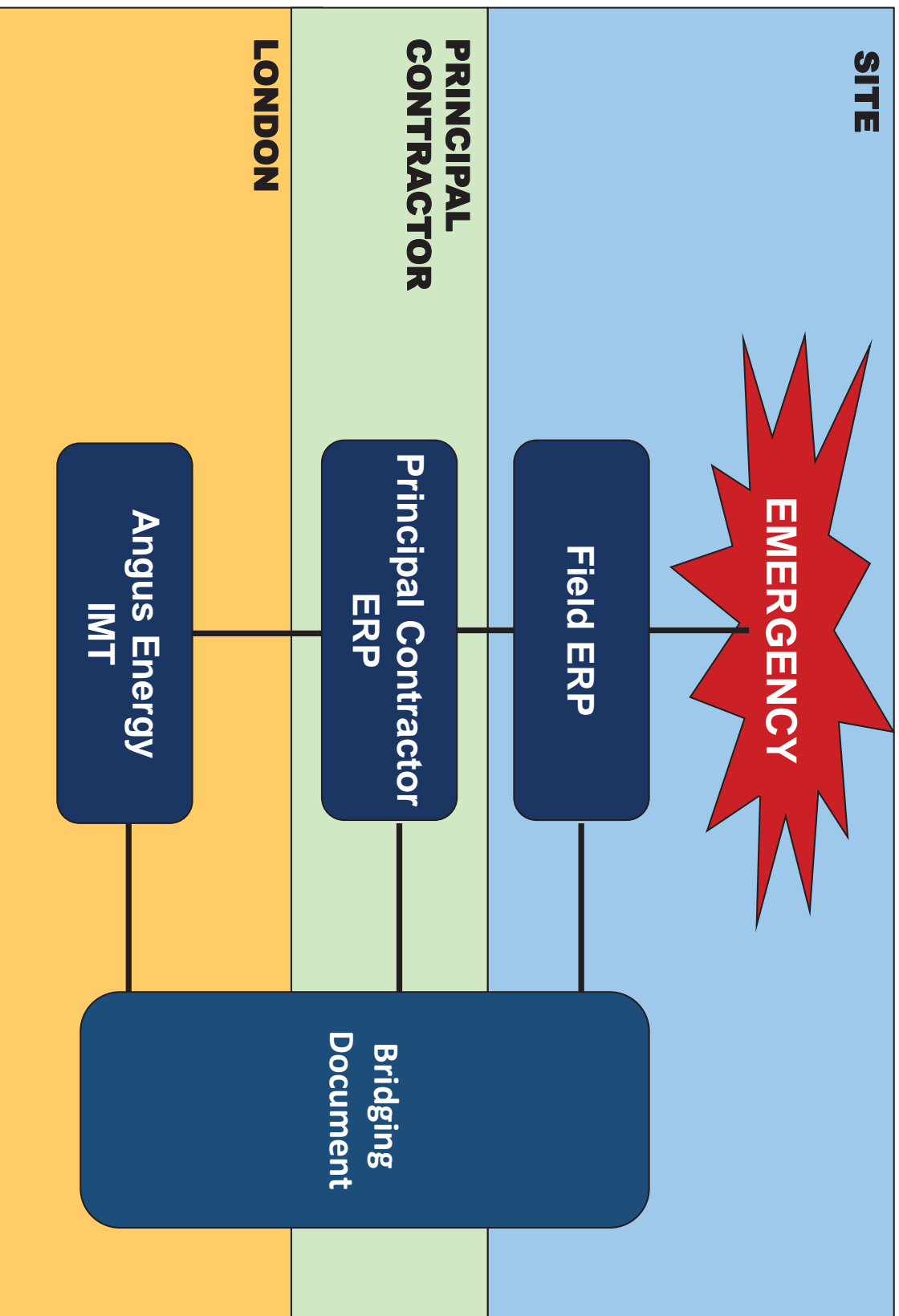
Prior to the commencement of the Well Test, ANGS have undertaken a number of key measures to reduce the foreseeable risk(s) to ALARP, these include:

- Pre-Qualification Questionnaire (ANGS-C-ALL-GE-001)
- Interface Document (ANGS-04-BAL-5Z-RP-001)
- Safety Critical Elements Register (ANGS-0-BAL-5Z-REG-001)
- Well Test audit/Inspection
- Kick-off meeting
- Pre-Spud meeting
- Progress meetings
- Wellsite Visits
- HAZID Studies

At the commissioning phase of the project the ANGS Well Test Supervisor and ANGS Risk & Compliance Manager shall QA/QC the certification package and perform verification activities e.g. Pressure testing, ESD, PRV, function tests, wellsite acceptance certificates and setting KPIs to measure contractors performance.

Audits & Inspections shall be conducted throughout the lifecycle of the project – following the PDCA approach.

Well Emergency Response Structure

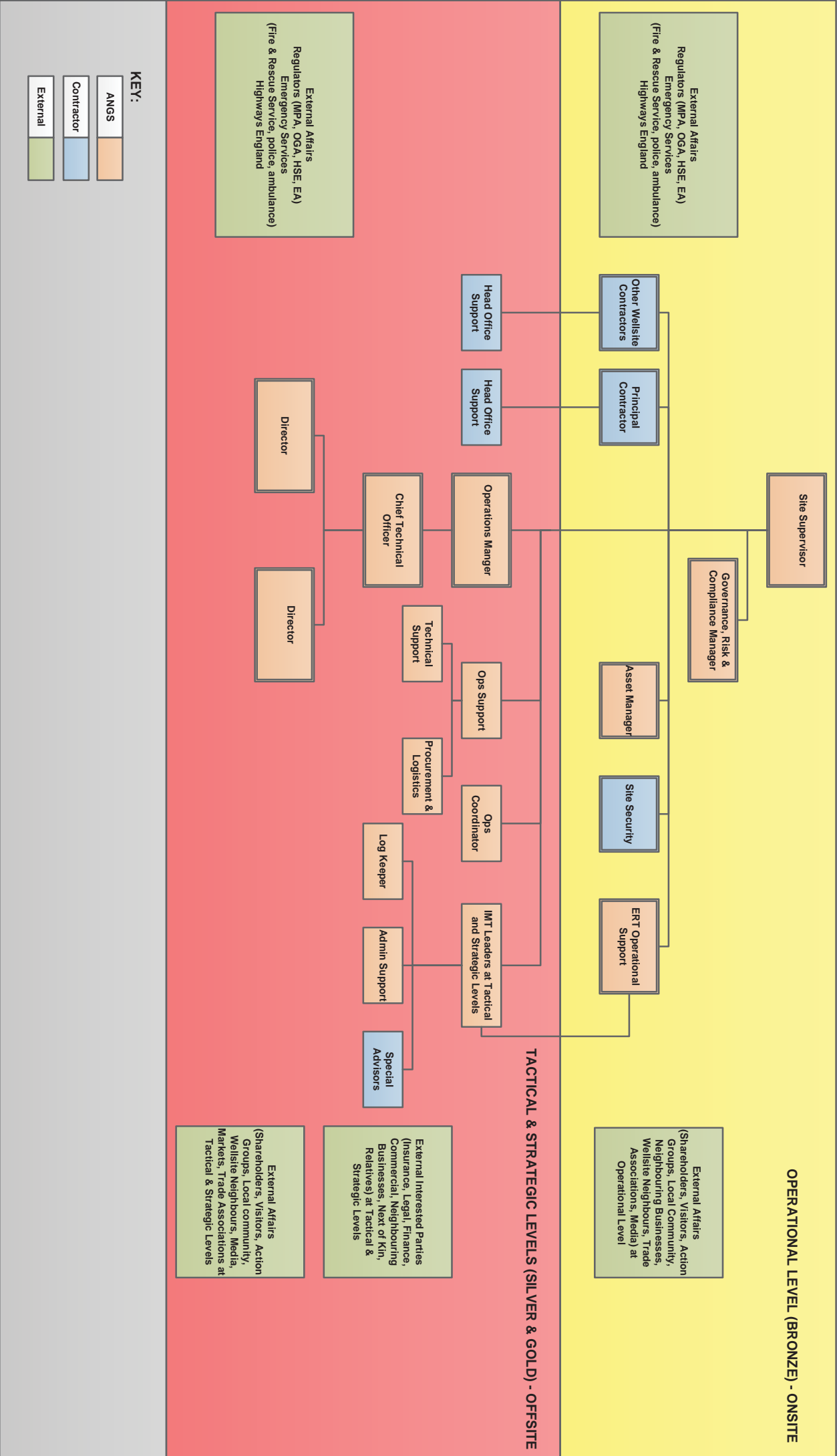


Bridging Document Contents

Defines who takes precedence in given normal / emergency operations and whose arrangements / controls are followed, following best practice standards and guidelines e.g. API BULL 97, Step Change in Safety, IOGP Reports.

Contents	Angus Energy	Principal Contractor	Other
Mgt. & Ops Responsibilities			
Communications / Normal Ops			
Mgt. of Change			
Op Controls / Normal Ops			
Emergency Controls & Communications			
Reporting & Investigation			
Competency & Training			
Audits & Inspections			

Angus Energy Emergency Response Plan



Resourcing & Support in Emergency

SITE

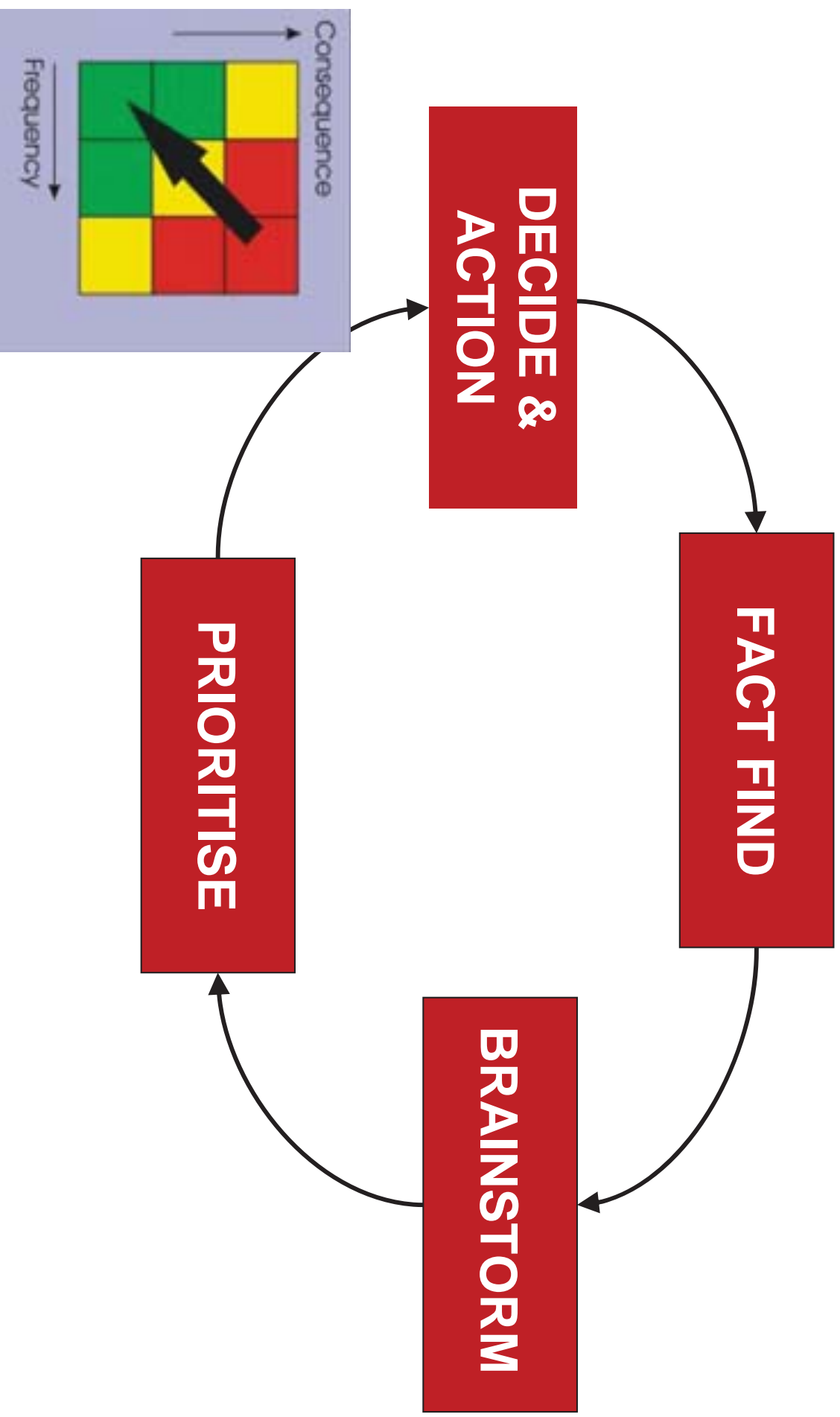
- Resourced with competent personnel
- Onsite Supervisor has a valid IWCF L4 Well Control Certificate
- Principal Contractor provides back up support and expertise
- Local emergency services informed in advance of our programme of work at the wellsite
- ERP outlined clearly within the site specific health and safety document
- Emergency drills conducted at regulator intervals and recorded on the IADC daily report
- Emergency provisions readily available at the wellsite
- 24 x 7 security onsite to manage risks from protesters

HEAD OFFICE/CORPORATE

Angus Energy require additional resources in the unlikely event that they are required to support a major emergency/crisis. This is resourced as follows:

- Consultancies specialising in media management & emergency planning at tactical & strategic levels will provide:
 - Additional trained support personnel to provide 24 x 7 Duty Manager and Incident Management Team cover
 - A fit for purpose emergency room with phones, relevant documentation, meeting spaces and appropriate levels of security
 - Media management for internal and external interested parties

Strategic Analysis



Potential Env. Strategic Risks

Assess any environmental impacts on sensitive areas including:

- Short and long term effects on water-courses/land/air
- Short and long term pollution effects
- Reaction of Environmental Agencies
- Reaction of Pressure Groups
- Business continuity & reputation

Consider short and long term responses to mitigate pollution effects including:

- Rapid containment and clean up
- Monitoring of perimeter and as yet unaffected areas
- Long term clean up and monitoring plan

Potential HR Strategic Risks

- Site workforce / families
- Other company employees
- Contractors/consultants
- Company morale
- Disciplinary & Grievance
- Ongoing training & development
- The workforce and its relationship with the company
- Relationship between company, contractors & interested third parties
- Recruitment & staff turnover
- Stress
- Contracts & Handbook

Potential Communications Strategic

- National / Local Governments
- Regulators/Legislators
- Pressure Groups
- Neighbours at this and other sites
- Community PR near site
- Customers
- Suppliers
- Financial Community
- Partners
- Shareholders (Private / Pension funds / Institutional)
- Insurers & General Public
- Third parties involved in the incident

Potential Financial Strategic Risks

- What insurance cover is applicable
- Cost of repair/replacement?
- Cost of response to emergency site?
- Cost of liabilities, claims, fines, prosecutions, compensation?
- Directors Liability
- Future Operation
- Partners costs
- Loss of Revenue
- Cash Flow implications
- Share price
- Contractual issues
- Legislative reaction
- Enforcements, sanctions & prosecutions notices

Response Team Training & Exercises

THE INTENTION IS TO CONFIRM THAT RESPONSE PLANS ARE FIT FOR PURPOSE AT OPERATIONAL, TACTICAL & STRATEGIC LEVELS

- ALL parties (Angus Energy, major contractors) review and approve response documentation
- ALL referenced contact phone numbers and emails are tested

Site

- Induct all staff / visitors
- Hold regular drills
- Emergency phone numbers posted on the HSE notice boards
- Nearest hospitals & routes posted on the HSE notice boards

Head Office

- All Crisis Management Team members undergo the following:
 - Induction – Formal Presentation
 - Desk Top Training
 - Scripted Exercise using role players

Monitoring & Audit

STANDARD: Routine monitoring, inspections, reviews and audits will be undertaken to assess and, where necessary, improve HSE performance

- A HSE performance monitoring and measurement programme shall be established and maintained to monitor performance against Key Performance Indicators (KPIs):
 - Frequency of incidents;
 - Number of non-compliances with permits;
 - Action items implemented/action items outstanding;
 - Training planned/training completed.
- Compliance with applicable legal requirements shall be periodically evaluated.
- Monitoring results shall be documented and reported and records retained.
- An audit programme shall be developed and implemented. The scope and frequency of these audits shall be determined by historic HSE performance and risk.
- Audit deficiencies shall be identified and action taken to rectify them. Audit findings shall be documented and records maintained. Agreed actions shall be communicated, tracked to completion, and closed out.

Community Engagement

Angus Energy maintains an open and transparent relationship & dialogue with internal & external interested parties.

- We do this in a number of ways:
 - Keeping local landowners updated about pending projects
 - Maintaining an up to date website with news bulletins and videos
 - Legal notices in the press and at wellsite level
 - Parish Council Q&A sessions
 - Maintaining good relationships with our wellsite neighbours
 - Safety tours undertaken with local pressure groups
- Our overall objective is to run our operations as safely & environmentally sensitively as possible. We aim to win trust as an Operator, so that the community is behind our strategic objectives.
- We aim to be responsible, easy to engage with, transparent and considerate.

Community Engagement for Well Test

Angus Energy has set up a number of forums for community engagement in regards to the Well Operations.

These forums include:

- Setting up a Community Liaison Group (CLP) for Balcombe, first meeting held on the 5th September 2018
- Summary/FAQ forms distributed locally, which addresses key questions
- FAQ page on our website
- Dedicated telephone line and email address, for any community member to contact ANGUS and raise any questions/complaints
- Communication through local media should there be any issues to report in addition to the above
- Organised safety tours for multiple operations.

Angus Energy Financial Structure

- Angus Energy Plc are listed on the AIM – London Stock Exchange
- Market Capitalisation on [REDACTED]
- Fully funded AIM listed company
- Access to capital markets via both equity and debt

Insurance

In the case that funding will flow from insurance, we have adequate insurance in place via a combined liability policy for Employers Liability and Public & Products Liability with [redacted] covering among our operated fields and licence areas.

The effective date for this policy is for the period from [redacted] [redacted] In addition, we have a Control of Well Policy [redacted] with [redacted] for the period [redacted] covering all our fields

N.B. Extensions of all these policies are currently being confirmed