

1 March 2022

UK SOUTHERN GAS BASIN CORPORATE AND OPERATIONAL PROGRESS REPORT

Highlights:

- **Completion of the Anning field geological model providing a calculated gas-initially-in-place (GIIP) volume of 219¹ Bcf.**
- **Phase I Anning and Somerville fields GIIP volumetrics now calculated to be 587¹ Bcf.**
- **Completion of history matching of the dynamic models of the Anning and Somerville fields enabling optimisation of frac and well placement.**
- **Finalisation of export route linked production forecasts to follow as key inputs to the Phase I Concept Select Report (CSR).**
- **Petrofac to commence multiple workstreams on emissions, HSE studies, third party Brownfield modifications for infrastructure tie-in and pipeline routings as part of the Phase I Concept Select Reporting.**
- **Negotiations to secure Indicative Commercial Terms (ICTs) from gas transportation and processing infrastructure owners continue to progress.**
- **Phase II subsurface workstreams, covering the Hodgkin and Lovelace fields, nearing completion with revised GIIP volumetrics and production forecasts to follow.**
- **Invitation to Tender (ITT) issued to service companies for the following workstreams:**
 - **Phase I Concept Select Peer Review;**
 - **Technical audit of Phase I, II and III resource estimates and a new Competent Persons Report (CPR); and**
 - **ESG Strategy and Reporting.**

Hartshead Resources NL (**Hartshead, HHR** or the **Company**) is pleased to announce the following corporate and operational update highlighting recent activity on Seaward License P2607 and the progress achieved across all three phases of the Company's portfolio.

PHASE I DEVELOPMENT – ANNING AND SOMERVILLE FIELDS

Geological reservoir modelling for the Anning and Somerville fields has now been completed by Xodus Group (**Xodus**). A total Phase I gas-initially-in-place (GIIP) volume of 587 Bcf has been calculated – an overall increase of 18% above the previous Hartshead estimate of 496 Bcf. The revised GIIP volume is

¹ Hartshead Resources management estimates.

split 219 Bcf and 368 Bcf between the Anning and Somerville gas fields, respectively, with the 112 Bcf GIIP increase in the Somerville field due partly to previously unmapped extension of the field.

Anning and Somerville dynamic reservoir models (derived from the geological models above) have been history matched to the previous field production and pressure profiles. These history matched models can now be used in “prediction mode”, to forecast gas flow rate and production from new planned wells on the fields. The history matched models are now being used to optimise frac design and well placement.

Results from the dynamic reservoir simulation modelling, will be combined with well geometry, facilities and export route pipeline information to forecast production from the total Phase 1 development plan. This final production forecast will be input to full field life economics as part of the Phase I Concept Select Report (CSR).

As part of the Phase I Concept Select and Report preparation and submission, Petrofac will be commencing a number of workstreams. These workstreams will include:

- A full field HSE study of shortlisted development options;
- An emissions study to generate the life of field (construction, installation, operation and decommissioning) carbon equivalent emissions for each of the greenfield facilities options and the gas offtake routes;
- Pipeline routing options and cost analysis of two potential routes;
- Provide high level summary scope of work and CapEx estimate for the host modifications required applicable to the six options for tie-in of single pipeline arrival to Infrastructure

These workstreams will provide final input to the report to be submitted to the OGA.

The Company continues negotiations with owners of gas transportation and processing infrastructure local to the Phase I development area. Discussions with these infrastructure owners continue with a view to the receipt of indicative commercial terms (ICTs) and commencing engineering feasibility studies for the tie-in of Hartshead’s facilities and gas offtake in the near future.

PHASE II DEVELOPMENT – HODGKIN AND LOVELACE FIELDS

The Hodgkin and Lovelace fields are located in the north-west part of License P2607 and are currently estimated to contain a combined 139¹ Bcf of 2C Contingent Resources.

CONTINGENT RESOURCES (BCF)			1C	2C	3C	GCoS
PHASE II	49/6c, 49/11c	Lovelace	14	39	79	100%
	48/15c	Hodgkin	35	100	387	100%

The Phase II subsurface workstreams are nearing completion and have resulted in the construction of a new geological and geophysical database, detailed interpretation of the new 3D seismic data and petrophysical analysis. The next steps of the work programme will include a gas-in-place volumetric calculation, new production forecasts for both the Hodgkin and Lovelace gas fields, and revised recoverable resource estimates (2C). Following completion of these latter workstreams a decision can be made to proceed with field development planning for the two fields. This will present the opportunity to utilise the Phase I infrastructure in order to monetise the Phase II gas production which may lead to potentially enhanced economics of the Hodgkin and Lovelace fields.

In addition, the revised 2C contingent resources at Hodgkin and Lovelace will be independently audited and the results compiled and announced as part of an updated Competent Persons Report (CPR) covering the Phase I and Phase II assets and Phase III prospect inventory.

CORPORATE

An Invitation to Tender (ITT) or request for proposal has recently been issued to a number of service providers in respect of the following workstreams:

- **Phase I Concept Select Peer Review:** An independent evaluation of the workstreams completed as part of the Phase I Concept Select, incorporating a Technical Audit of the resource estimates for Phase I and II fields and the Phase III exploration prospect inventory. A key deliverable from the Technical Audit will be a new Competent Persons Report (CPR).
- **ESG Strategy and Reporting:** To assist Hartshead in developing its ESG strategy, including the establishment of an industry standard framework for the measurement and auditing of emissions, and a reporting system to integrate into existing ASX compliance and corporate governance requirements.

Tenders have now been received and a technical and commercial bid evaluation process is being conducted to select the most suitably qualified service company for each of the above workstreams. Details will be announced in due course.

-Ends-

CONTACTS

The Board of Directors of Hartshead Resources NL authorised this announcement to be given to ASX.

For further information on this announcement, visit www.hartshead-resources.com.au or contact:



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Notes to Editors:
Hartshead Resources NL

ASX-listed Hartshead Resources NL and is focussed on building a financially, technically and environmentally responsible European Energy business.

Hartshead's goal is to secure and invest in projects where resources can be extracted and delivered to meet Europe's growing energy demand while supporting the transition to a low carbon future.

In progressing this strategy Hartshead is focused on its 100% owned Production Seaward License P2607 comprising of five blocks which contain four existing gas fields in the UK Southern Gas Basin.

Hartshead brings together a highly experienced oil and gas team with specialised knowledge covering subsurface, engineering, commercial, QHSE and capital markets with the required skillsets needed to successfully and safely deliver oil and gas upstream projects.

UK Southern North Sea Production Seaward License P2607 – Contingent and Prospective Resources

Please refer to the qualified person's statement relating to the reporting of contingent and prospective resources on Hartshead Resources Southern North Sea License P2607 in Hartshead's ASX Announcement dated 14 December 2020 (see Schedule 3). The Company is not aware of any new information or data that materially affects the information about the contingent resource and prospective resource estimates included in this announcement and all the material assumptions and technical parameters underpinning those estimates in this announcement continue to apply and have not materially changed.

Contingent resources reported herein have been estimated and prepared using the probabilistic method.

CONTINGENT RESOURCES (BCF)						
PHASE I PROJECTS			1C	2C	3C	
ANNING	49/17b		84	125	177	
SOMERVILLE	49/17b		62	90	124	
COMBINED ²	49/17b		161	217	285	

CONTINGENT RESOURCES (BCF)			1C	2C	3C	GCOS
PHASE II	49/6c, 49/11c	Lovelace	14	39	70	100%
	48/15c	Hodgkin	35	100	387	100%

² Volumes combined stochastically to give portfolio volume

PROSPECTIVE RESOURCES ³			P90	P50	P10	GCoS
PHASE III	49/17b	Garrod	29	56	94	50%
EXPLORATION	49/17b	Ayrton	43	85	142	30%

Forward Looking Statements

This document has been prepared by Hartshead Resources NL (HHR). This document contains certain statements which may constitute "forward-looking statements". It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including, but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve and resource estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delays or advancements, approvals and cost estimates.

HHR's operations and activities are subject to regulatory and other approvals and their timing and order may also be affected by weather, availability of equipment and materials and land access arrangements. Although HHR believes that the expectations raised in this document are reasonable there can be no certainty that the events or operations described in this document will occur in the timeframe or order presented or at all.

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Qualified Person's Statement

Hartshead has prepared the Contingent Resource and Prospective Resource information in this announcement in accordance with the ASX Listing Rules and the 2007 Petroleum Resources

³ Prospective resources are estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These prospective resources estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Management System published by the Society of Petroleum Engineers (SPE-PRMS). The Contingent Resource estimates and Prospective Resource estimates presented in this report were originally disclosed to the market in an announcement released 14 December 2020. Hartshead confirms that it is not aware of any new information or data that materially affects the information included in the aforesaid market announcement and that all the material assumptions and technical parameters underpinning the estimates in the aforesaid market announcement continue to apply and have not materially changed. The information in this announcement that relates to Contingent Resource information in relation to the Phase I Anning and Somerville fields is based on information compiled by technical employees of independent consultants, Oilfield Production Consultants Ltd, which information was subsequently reviewed by Mr Christopher Lewis. The information in this announcement that relates to Contingent Resource information in relation to the Phase II Hodgkin and Lovelace fields and the Prospective Resource information in relation to the Garrod and Ayrton prospects is based on information compiled by Mr Christopher Lewis and information compiled by technical consultants contracted to Hartshead which has been subsequently reviewed by Mr Christopher Lewis. Mr Lewis has consented to the inclusion of such information in this announcement in the form and context in which it appears and the resources information in this report is based on, and fairly represents, information and supporting documentation reviewed by, or prepared under the supervision of, Mr Christopher Lewis. Mr Lewis is a Director of Hartshead and has a BSc from the Imperial College, University of London and is a member of The American Association of Petroleum Geologists (AAPG) and the European Association of Geoscientists and Engineers (EAGE). Mr Lewis is qualified in accordance with the requirements in ASX Listing Rule 5.41.