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**Rockhopper Exploration plc**  
("Rockhopper" or the "Company")

**Sea Lion Exploration Well – 14/10-2**  
**Oil Discovery – Technical Update**

Rockhopper Exploration, the North Falkland Basin oil and gas exploration company, is pleased to provide the following update regarding analysis of the results of the Sea Lion 14/10-2 well oil discovery recently completed in the North Falkland Basin:

**Highlights:**

- Samples analysed in a dedicated laboratory confirmed as medium gravity crude oil – ranging from 26.4° to 29.2° API
- Every sand in the well beneath regional seal charged with oil
- RPS Energy Best Estimate recoverable upgraded from 170mmbbls to 242mmbbls recoverable with significant upside potential
- Board believes new play fairway opened
- 217 metres gross oil column, 53 metres net pay
- The Company intends to test the well at the earliest opportunity during the current campaign

**Results of data analysis**

Well 14/10-2 on the Sea Lion prospect ("Sea Lion" or "the Sea Lion well") was drilled to a depth of 2,744 metres during April and May 2010. Following completion of final logging, the well was suspended for future testing. The Company intends to test the well at the earliest opportunity during the current campaign and test equipment is currently being mobilised.

The well penetrated what the Company believes is a regional seal between 2,250 metres and 2,374 metres subsea. Based on log analysis, well site evaluation of shows and samples, sidewall cores and wireline formation testing, it appears that all sands encountered beneath this regional seal at the Sea Lion location are charged with oil and no oil water contacts were encountered.

The top oil sand in the Sea Lion well was encountered at 2,374 metres subsea, and the base of the lowest oil sand ("oil down to") level was encountered at 2,591 metres subsea. The total vertical oil column is 217 metres (712 feet), with total net pay of 53 metres in seven identified pay zones, the thickest of which is approximately 30 metres gross.

Pressure data suggest the possibility of two separate oil columns, although this will have to be confirmed by a full well test. The main Sea Lion fan has a net pay interval of 34.5 metres. Additional underlying sands have net pay totalling approximately 18 metres. Approximately 16m of this lower pay appears to relate to a Sea Lion lower fan, which had been previously recognised, but not included as a primary prospect. A further 2 metres of deeper pay has also been encountered.

The oil down to level of 2,591 metres subsea is 116 metres beneath the lowest mapped point of the Sea Lion fan. The entire Sea Lion fan has an aerial extent of over 45 sq km and there are strong seismic indications of thicker reservoir packages elsewhere in the fan. The oil down to level is significantly lower than the lowest point of the Sea Lion main fan.



On the basis of the information gathered in this well, RPS Energy Pty Ltd, the competent person responsible for the Company's Competent Person's Report of April 2009 (the "April 2009 CPR)", has revised the range of possible outcomes as follows (the "June 2010 RPS Report"):

**\*\*\*RPS Energy current estimates (as of 3 June 2010):**

	STOIP (MMbbls)			
	Low	Best	High	Mean
Sea Lion Main Fan	232	717	1,493	764
Sea Lion Lower Fan	53	146	370	185
<b>Total*</b>	<b>382</b>	<b>806</b>	<b>1,673</b>	<b>943</b>

	Recoverable Contingent** Resources (MMbbls)			
	Low	Best	High	Mean
Sea Lion Main Fan	35	215	597	229
Sea Lion Lower Fan	8	44	148	63
<b>Total*</b>	<b>57</b>	<b>242</b>	<b>669</b>	<b>291</b>

*\*Totals are consolidated probabilistic volumes and not a summation of individual accumulations*

*\*\*Contingent upon the determination of commerciality, based on well flow rates and an economic development plan*

*\*\*\*The June 2010 RPS report relates specifically and solely to the subject assets and is conditional upon various assumptions that are described therein. The report should, therefore, be read in its entirety. The assessment of the Sea Lion discovery was performed within a limited time frame. RPS is being commissioned by the Company to conduct further work on the Sea Lion discovery and therefore the assessment published today may be subject to change following a more detailed technical review. The report is available on the Company's web site – [www.rockhopperexploration.co.uk](http://www.rockhopperexploration.co.uk)*

Examination of side wall core samples confirms extensive good oil staining and good reservoir characteristics. Logging data are indicative of good quality reservoir, with average porosity of 19% and good permeability.

Samples of oil recovered from the well have now been analysed in a specialist laboratory. 5 samples were analysed and returned between 26.4° API and 29.2° API. Further analysis will now be carried out and a press release will be made when appropriate.

Management believes that the Sea Lion well has opened a new play fairway in licences PL032 and PL033. The Company will now re-evaluate technical data in the light of information gained from well 14/10-2 with a view to de-risking the existing inventory of prospects and indentifying new ones.

**Sam Moody, Managing Director, commented:**

"Rockhopper has now confirmed the first Contingent Oil Resource in the Falklands. Our analysis of the data from the Sea Lion well suggests that there is significant potential upside on our acreage and our technical effort will now focus on integrating all of our new knowledge of the basin so we can understand and identify the best prospects for future drilling. Being a



100% holder of this acreage potentially places Rockhopper in a very strong position. We are now looking forward to drilling Ernest and testing Sea Lion.

The test of Sea Lion will be a key step on the road to proving commerciality. We believe that, with modern horizontal completions and water injection in sands of the quality encountered, recovery factors significantly above the 15% assumed in the P90 case could be achieved. Furthermore, our recently updated economic model indicates that a stand alone field of 60mmbbls recoverable could be commercial at oil prices down to US\$50 per barrel.”

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**Notes to Editors**

Rockhopper was established in February 2004 with a strategy to invest in and carry out an offshore oil exploration programme to the north of the Falkland Islands. The Company floated on AIM in August 2005 and holds a 100 per cent. interest in four offshore production licences: PL023, PL024, PL032 and PL033 which cover approximately 3,800 sq. km. Rockhopper has also farmed in to licences PL003 and PL004 which are operated by Desire Petroleum in which it holds a 7.5% working interest. These licences have been granted by the Falkland Islands government.

An extensive work programme has been carried out over a number of years on the licences operated by Rockhopper. This has included 2D and 3D Seismic and Controlled Source Electromagnetic Mapping (CSEM). In February 2010, the Ocean Guardian drilling rig arrived in Falklands waters to carry out a multi-well drilling campaign. Rockhopper drilled an exploration well on its Sea Lion prospect during April and May 2010, the result of which is the first oil discovery and Contingent Oil Resource in the North Falkland Basin. The Company intends to drill its Ernest prospect later during 2010 in addition to testing the Sea Lion discovery and participating in further wells with Desire.

Rockhopper Exploration plc [www.rockhopperexploration.co.uk](http://www.rockhopperexploration.co.uk)

NB: This statement has been reviewed and approved by the Company’s geological staff who including David Bodecott (Exploration Director), who is a Member of Petroleum Exploration Society of Great Britain (PESGB) and the American Association of Petroleum Geologists (AAPG) with over 30 years of experience in petroleum exploration and management, for the purpose of the Guidance Note for Mining, Oil and Gas Companies issued by the London Stock Exchange in respect of AIM companies, which outline standards of disclosure for mineral projects.

**Appendix**

The table below compares the Sea Lion resource estimate as stated in the April 2009 CPR to the June 2010 RPS Report:

***RPS Energy previous estimates (as of 29 April 2009):***



### Sea Lion

	<b>Low</b>	<b>Best</b>	<b>High</b>	<b>Mean</b>
Prospective STOIP (MMbbls)	234	568	1,348	710
Prospective Resources (MMbbls)	58	170	472	220

### *RPS Energy current estimates (as of 3 June 2010):*

### Sea Lion

	<b>Low</b>	<b>Best</b>	<b>High</b>	<b>Mean</b>
Contingent STOIP (MMbbls)	382	806	1,673	943
Recoverable Contingent Resources** (MMbbls)	57	242	669	291

\*\*Contingent upon the determination of commerciality, based on well flow rates and an economic development plan

### Glossary

#### API Gravity

A specific gravity scale developed by the American Petroleum Institute (API) for measuring the relative density of various petroleum liquids, expressed in degrees

Crude oil is classified as light, medium or heavy, according to its measured API gravity

- Light crude oil is defined as having an API gravity higher than 31.1° API. (less than 870 kg/m<sup>3</sup>)
- Medium oil is defined as having an API gravity between 22.3° API and 31.1° API. (870 to 920 kg/m<sup>3</sup>)
- Heavy oil is defined as having an API gravity below 22.3° API. (920 to 1000 kg/m<sup>3</sup>)
- Extra heavy oil is defined with API gravity below 10.0° API. (greater than 1000 kg/m<sup>3</sup>)

Other medium grade oil discoveries include a number of fields found recently in Brazil and West Africa.

#### Contingent Resource

Contingent Resource are 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.

Contingent Resources may include, for example, accumulations for which there is currently no viable market, or where commercial recovery is dependent on the development of new technology, or where evaluation of the accumulation is still at an early stage.

#### Net Pay

The portion of the gross hydrocarbon bearing interval that contains moveable hydrocarbons.



**STOIP**

Stock Tank Oil Initially In Place