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Alba Mineral Resources PLC
("Alba" or the "Company")



Horse Hill-1 Oil Discovery Update

Upgrade on Portland Discovered Oil in Place Volumes and Conventional Upper Jurassic Limestone Oil Play, Weald Basin UK

Alba today announces that as a result of the analysis and integration of subsurface data from the Horse Hill-1 ("HH-1") discovery well, the calculated estimates of the discovered most likely gross oil initially in place ("OIIP") within the overall Upper Portland sandstone conventional reservoir in the HH-1 and Collendean Farm-1 ("CF-1") structure have increased by over 250% from the 3.1 million barrels ("mmbbls") reported on 24 October 2014, to a current most likely OIIP of 8.2 mmbbls. Similarly, calculated estimates of low case (P90) discovered OIIP has increased by nearly 400% to 5.7 mmbbls and high case (P10) OIIP volumes show a 250% increase to 12.1 mmbbls.

In addition, the results of electric log analysis in the HH-1, CF-1 and other regional wells to the south of PEDL 137 ("Licence"), combined with ongoing geochemical analysis of HH-1 samples, indicate that the key elements of a conventional Upper Jurassic Limestone oil play have been demonstrated to extend into the southern part of the Licence. The HH-1 well demonstrates the presence of limestone porosity adjacent to, both overlying and underlying, thermally mature super-saturated world-class oil source rocks within a 1,496-foot gross interval of the Upper Jurassic Kimmeridgian Clay ("KC") Formation between 2,224 feet and 3,720 feet TVDss. Samples from the KC show total organic carbon ("TOC") of up to 9.4%, generative potentials of between 45-103 kg of hydrocarbons per tonne and with measured vitrinite reflectance ("Ro") exceeding 0.81% at the base of the formation.

Further conventional oil potential within the Middle Jurassic Kellaways Beds sandstones in HH-1 is currently under investigation.

Work is underway to obtain the necessary permissions to conduct a production flow test from the HH-1 Upper Portland conventional oil pool in 2015.

The current OIIP estimates are set out in Table 1 below.

The full results of the HH-1 well are complex by their nature. The Operator's post-well evaluation has therefore taken longer than expected and is still continuing, as described below.

Portland Sandstone Discovery

Integration of the Vertical Seismic Profile ("VSP") data from the HH-1 well has enabled a revised interpretation of available 2D seismic data to be made over the geological structure containing the HH-1 discovery. The current seismic interpretation is strongly indicative that the Upper Portland oil pool, discovered by HH-1, is most likely part of a larger geological structure containing the CF-1 well to the north drilled by Esso in 1964.

New electric log analysis of the CF-1 well demonstrates that a near identical Upper Portland reservoir section to that seen in HH-1 exists with a gross 97-foot oil saturated "missed oil pay" section and average porosities of 16%. The Company reported on 24 October 2014 that HH-1 contained a gross oil saturated

Upper Portland section of 102 feet with 16% average porosity. Oil saturations exist to the base of the Upper Portland sand reservoir in both HH-1 and CF-1, indicating that the oil water contact lies deeper within the structure. The Company currently interprets that the proven lowest oil at 1,900 feet TVDss found in the HH-1 well now demonstrates that a most likely 140 feet hydrocarbon column has been discovered, 38 feet greater than the 102-foot oil column previously reported. The mapped spill point (and possible oil water contact) of the combined HH-1 and CF-1 Upper Portland oil pool demonstrates that a possible 240-foot maximum hydrocarbon column could exist within a structural closure of approximately 3,400 acres (14 square kilometres).

The Operator’s analyses of the Brockham-1 well logs demonstrate that the oil producing Upper Portland reservoir thickness and overall quality in the nearby Brockham field are very similar to HH-1 and CF-1 and provide a direct producing reservoir analogue. However, the Operator’s calculated most likely (P50) OIIP of 8.2 mmbbl for the HH-1 and CF-1 discovery is significantly larger than the Brockham field’s most likely (P50) Upper Portland OIIP of 3.62 mmbbl, certified by RPS Energy at end 2013.

Work is ongoing to submit an application to the Department of Energy and Climate Change (“DECC”), the Environment Agency and Surrey County Council for permission to carry out a flow test on the Upper Portland Sandstone in HH-1. The planned flow test will likely include a pressure transient test to examine the reservoir connectivity within the overall geological structure.

Subject to this HH-1 flow test, a future submission is planned to DECC of a Field Development Plan for the HH-1 and CF-1 discovery. The presence of two wells containing oil saturations down to base reservoir within the same mapped structural closure, and with similar reservoir quality to the Brockham oil field but larger OIIP, significantly increases the Company’s confidence that the Upper Portland discovery can be developed as a commercial oil field.

Table 1: Estimated gross in place discovered Upper Portland Sandstone oil volumes

HH-1 and CF-1 Structure	Low (P90)	Medium (P50)	High (P10)
Discovered OIIP, mmbbls	5.7	8.2	12.1
Increase from 24.10.14	+380%	+260%	+250%

Alba has a net attributable interest of 3.25% in the discovery.

It should be noted that the OIIP numbers in Table 1, above, represent the Operator’s current viewpoint. For the avoidance of doubt OIIP numbers should not be construed as resource or reserve estimates as a significant proportion will not be recovered during any future production regime.

Volumes have been estimated by the Operator using methodologies and standards published by the Society of Petroleum Engineers.

Conventional Upper Jurassic Limestone Oil Potential

The HH-1 well penetrated an unexpectedly thick 1,496-foot gross interval of the Upper Jurassic Kimmeridge Clay (“KC”) Formation between 2,224 feet and 3,720 feet TVDss. The sequence contains predominantly organically rich high gamma-ray hot shale, inter-bedded with two regionally correlatable limestone units. Preliminary examination of cuttings indicates the limestones are coccolithic argillaceous micrites. The mud log showed elevated gas readings above the upper limestone (KC Micrite 1) and weak oil shows were reported within the limestone. The KC Micrite 1 encountered at 2,510.4 feet TVDss has a gross thickness of 113 feet and electric log analysis indicates the development of 37 feet of net porosity greater than 5%. A continuous oil saturated zone of approximately 20 feet below 2,550 feet TVDss is calculated. Average total porosity within the hydrocarbon zone is calculated at 6.4% and is dominated by secondary porosity.

The gamma-ray log through the KC Micrite 1 shows a near identical pattern and formation thickness to the equivalent micrite found in the Balcombe-1 well, drilled by Conoco in 1986 approximately 15 kilometres to the south. The Operator’s analysis also demonstrates that the top of the oil saturated porous zone in HH-1 occurs at an identical stratigraphic and gamma-ray point to the top of the proven tested oil pay zone in Balcombe-1. Total porosities of 8% are calculated within the Balcombe pay section and are thus similar to HH-1.

The lower limestone (KC Micrite 2) has a gross thickness of 83 feet and shows 28.6 feet of net porosity development with an average porosity of 7%. No shows or elevated gas readings were reported, although minor thin oil saturated zones are calculated from logs.

The Company reported on 5 November 2014 that multiple oil shows and elevated gas readings were encountered within the KC Formation and that preliminary geochemical analysis showed oil source rock potential to likely be higher than expected. Subsequent analysis of a further eight KC shale samples, from 2,715 to 3,345 feet TVDss encasing the KC micrites, show TOCs of 4.64 to 9.4% and generative potentials of between 45 and 103 kg hydrocarbon/tonne of rock. Corresponding calculated hydrogen indices (HI) are extremely high, ranging from 759-1098, indicating a very oil-prone source rock. These initial sample results gives management confidence that the KC within the south of PEDL 137 has the potential to be a world-class source rock of equivalence to the proven conventional oil source rocks of the KC within the Viking Graben and Central Graben of the North Sea.

Thermal maturation data obtained from well cuttings samples shows that the pre-Oligocene and Jurassic section of the HH-1 well has achieved greater than expected maximum burial depths. Measured vitrinite reflectance ("Ro") between the top and base of the KC ranges from 0.62-0.81%, demonstrating that the KC lies within the early to peak oil generation window. The Lower Liassic shale and limestone sequence shows a measured Ro of up to 0.98%, indicating the late peak oil to early wet-gas condensate generation window.

The 2014 Weald Shale Report by the British Geological Survey models the top of the oil window within the Weald Basin to represent a burial depth of 7,000 to 8,000 feet (i.e. a Ro of 0.5-0.6%). Consequently, the top of the oil window, interpreted to be at circa 2,300 feet TVDss in the HH-1 well, indicates the well was likely to have been uplifted by approximately 4,500 to 5,500 feet during the post-Oligocene inversion period. The southern part of PEDL 137 during KC deposition would thus have been in a more basin-centred location than at present day and could lie within a high TOC KC basinal sweet-spot.

The Operator has concluded that the most likely source of oil saturations found within the KC Micrite 1 is thus from the adjacent underlying and overlying hot shale of the KC in direct proximity to the HH-1 well.

The Operator concludes that the presence of thermally mature KC source rocks, together with porosity within the KC Micrites and log derived micrite oil saturations, strongly indicate that an Upper Jurassic limestone conventional play exists within the southern area of PEDL 137.

Further detailed integrated geochemical and petrophysical studies are ongoing to help establish possible OIIP volumes in the KC Micrite 1. The Operator is also currently evaluating the feasibility of a short flow test in the KC Micrite 1 after the planned Upper Portland flow test.

Conventional Middle Jurassic Kellaways Beds Oil Potential

Re-examination of the HH-1 mud log shows that gas levels increase significantly 60 feet above the Kellaways Sandstone, continue throughout the 47-foot gross sand interval and immediately drop off within the underlying Great Oolite limestone. No observed oil shows were recorded within the Kellaways Sandstone. Geochemical analyses of samples from the Oxford Clay demonstrate that the section directly above the Kellaways Beds is thermally mature for oil generation (Ro of greater than 0.81%) and contains potential generative oil source rocks with TOCs of 1.9 to 2.9%. Electric logs are now being evaluated in more detail, to determine whether potential oil saturations lie within the Kellaways Sandstone.

Alba's interest in Horse Hill

The Horse Hill-1 well is located within onshore exploration license PEDL 137, on the northern side of the Weald Basin near Gatwick Airport. Alba owns a 5% direct interest in Horse Hill Developments Ltd ("HHDL"). Angus Energy owns 40% of HHDL and is the operator of the licence. HHDL is a special purpose company that owns a 65% participating interest and operatorship of licence PEDL 137 and the adjacent licence PEDL 246 in the UK Weald Basin. The participants in the Horse Hill-1 well are HHDL with a 65% working interest and Magellan Petroleum Corporation with a 35% interest. Alba's net attributable interest in PEDL 137 and 246 is therefore 3.25%.

Glossary:

2D seismic	seismic data collected using the two-dimensional common depth point method
argillaceous	a rock containing a significant proportion of clay minerals
coccolithic	containing coccoliths which are the skeletal remains of calcareous algae/plankton as found ubiquitously in the Chalk of NW Europe
discovery	a discovery is a petroleum accumulation for which one or several exploratory wells have established through testing, sampling and/or logging the existence of a significant quantity of potentially moveable hydrocarbons
electric logs	tools used within the wellbore to measure the rock and fluid properties of surrounding rock formations
gamma-ray log	an electric log which measures natural background radioactivity emitted mainly by potassium, uranium and thorium isotopes used as a sedimentary lithology discriminator
generative potential (S2)	the amount of hydrocarbons that can be generated from a unit volume of source rock established via the S2 peak from rock-eval pyrolysis, normally expressed in milligrammes of hydrocarbon per gramme of rock (or kilogramme per tonne)
hot shale	a shale rock displaying average initial TOCs normally exceeding 2% and represented by a high gamma ray electric log reading
hydrogen index (HI)	the amount of hydrogen relative to the amount of organic carbon in a sample, normally expressed in milligrammes of hydrogen per gramme of TOC. The higher the amount of hydrogen the more oil prone the source rock when subjected to time temperature and pressure; an initial HI over 450 normally indicates an oil prone source rock
kerogen	the fraction of organic material in a sedimentary rocks that is insoluble in the usual organic solvents being composed of a variety of organic materials, including algae, pollen, wood, vitrinite, and amorphous material. Over time and subjected temperature and pressure kerogen converts to hydrocarbons
micrite	a sedimentary rock formed of very fine grained calcareous particles ranging in diameter from 0.06 to 2 mm, often referred to as lime mudstone
mmbbls	millions of barrels
oil down to	the deepest level where oil saturation is measured at the base of a porous reservoir where it directly overlies rock of very low porosity and permeability where no reliable oil water contact can be established
oil initially in place	the quantity of oil or petroleum that is estimated to exist originally in naturally occurring accumulations before any extraction or production
oil saturation	the amount of the pore space within a reservoir containing oil
oil water contact	a bounding surface in a reservoir above which predominantly oil occurs and below which predominantly water occurs.
P10	a 10% probability that a stated volume will be equalled or exceeded
P50	a 50% probability that a stated volume will be equalled or exceeded
P90	a 90% probability that a stated volume will be equalled or exceeded
play	a set of known or postulated oil and or gas accumulations sharing similar geologic, geographic, and temporal properties, such as source rock, migration pathways, timing, trapping mechanism, and hydrocarbon type
porosity	the percentage of void space in a rock formation, where the void may contain, for example, water or petroleum
reservoir	a subsurface rock formation containing an individual natural accumulation of moveable petroleum that is confined by impermeable rock/formations
source rock	a rock rich in organic matter which, if subjected to sufficient heat and pressure over geological time, will generate oil or gas. Typical source rocks, usually shale or limestone, contain above an initial 1% organic matter by weight

spill point	the structurally lowest point in a hydrocarbon trap that can retain hydrocarbons, normally coincides with a hydrocarbon water contact
sweet spot	the area within a shale source rock unit showing highest TOC and generative potential normally associated with basin centred deposition
thermally mature	a term applied to source rocks which have received sufficient temperature and pressure over geological time to generate hydrocarbons
TOC	total organic carbon – the weight percent amount of organic carbon within the rock which is a commonly used measure of hydrocarbon source rock richness
TVDss	true vertical depth below a subsea datum
vitritine reflectance (Ro)	a measure of the percentage of incident light reflected from the surface of vitritine particles in a sedimentary rock. It is referred to as % Ro and is a measure of the thermal maturity of a rock. Top of the oil window is dependent on source rock type, but is widely recognized to be at an Ro equivalent of between 0.5-0.7%
VSP	vertical seismic profile, recording of seismic waves directly at the borehole to enable seismic two way travel time reflectors to be accurately correlated with formation depths encountered by the well

Competent Person's Statement:

The technical information contained in this announcement has, for the purposes of the AIM Guidance Note for Mining, Oil and Gas companies, been reviewed and approved by Jonathan Tidswell-Pretorius, Executive Director at HHDL and Chairman of Angus Energy Ltd, a UK registered onshore operator who has 15 years of relevant experience in the oil and gas industry. Mr. Tidswell-Pretorius is a member of the Society of Petroleum Engineers and United Kingdom Onshore Oil and Gas (UKOOG) industry bodies.

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Notes to Editors:

Alba holds interests in Mauritania (uranium: JV with FOSSE Investments Limited) and Ireland (base metals). It also owns a 5 per cent interest in Horse Hill Developments Limited, the company which owns a 65 per cent participating interest and operatorship of the Horse Hill oil and gas project. The projects are at different stages of development. The Mauritania uranium project comprises early phase exploration targets, whereas drilling has been undertaken on the Irish base metals project. The Horse Hill-1 well has now completed at a total depth of 8,770 feet.

Alba continues actively to review and discuss other project opportunities which have value enhancing potential for the Company whether by acquisition, farm in or joint venture in a range of jurisdictions around the world.

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