

**Dublin, Ireland, 11th February 2010**

U.S. OIL and Gas plc has completed ground geophysical and geochemical surveys over an area of its oil and gas leases and has detected anomalies associated with hydrocarbon seepage.

Samples from Hot Creek Valley Project Eblana, sections 1, 2 and 3 have been collected to date. Samples from Section 2 have now been analysed for Magnetic Susceptibility (MS), High Resolution Soil Spectral Analysis (HRSSA), hydrocarbon content by UV-Vis Spectroscopy, Iodine, and Soil Electrical Conductivity (umhos).

Mapping and interpretation of the data has detected the presence and seepage of hydrocarbons from the subsurface in the target area indicating the possible presence of oil. Three anomalous areas within the survey area confirm hydrocarbon leakage, with two of the anomalies indicating the presence of a gas cap on the oil.

The analytical methods used are independent of one another, the MS and HRSSA data being acquired using just the prepped sample, the UV-Vis and conductivity using the soluble organic and inorganic fraction of the prepped sample, and Iodine using a hot acid extraction of iodate from the prepped sample.

Surface geology interpreted from topography and aerial photos suggest the presence of several NE/SW faults or E/W faults in the survey area. The near surface expressions of the faults are geochemically evident. Faults work as gathering systems for seeping hydrocarbons, forming linear conduits to the surface. Further analysis shows that one of the anomalies is located on the flank of a structural nose and is possibly trapped by a high angle normal fault.

CEO Brian McDonnell says, “ The results so far indicate classic trapping by a high angle

normal fault. One of the anomalies exhibits excellent spatial consistency relative to size, shape and condition – a very encouraging result. We will integrate these results with our existing data and complete the geochemical analysis of Eblana Sections 1 and 3 very shortly.”

The company has also completed an IPDS seismic survey of the target area and expects to be in a position to evaluate the results soon. “The combination of geochemical and IPDS results will, in due course, give us the best possible subsurface interpretation before we choose our Phase 1 drilling target,” says Mr. McDonnell.

### **Notes to Editors**

U.S. Oil and Gas Plc is a leading independent oil & gas exploration group quoted as USOIL on the London Plus Quota market in London. The Group holds a lease area licence in Nevada, USA. USOIL has begun seismic, well and geophysical studies, which will be followed by a targeted drilling programme.

**U.S. Oil and Gas plc** is an Irish registered company No. 471932

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