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## RMSI completes R&D study for hydro-carbon exploration

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**November 16, 2010** -- RMSI, a leading player in the Global Geospatial Services industry today announced the successful completion of its in-house R&D study on "Integration of Surface and Subsurface Data for optimizing Hydrocarbon Exploration"

As a common practice, remote sensing and GIS technology, are used to prepare baseline information like geological maps, structural map, geological cross sections, thermal anomaly detection, hydrocarbon micro-seepage identification etc. to shortlist the target locations. These help in providing information on the regional geological settings of petroliferous basins and their analysis using remote sensing satellite sensors help in identifying surface anomaly which indicate the presence of hydrocarbon reservoirs.

On the other hand, using sub-surface information like gravity, magnetic and 2D seismic data provide relative subsurface information for oil and gas exploration which, when integrated with the surface geological, structural, thermal anomaly and hydrocarbon micro-seepage information, provides valuable information about the lead or prospect areas to be surveyed for 3D seismic studies. The geological cross-sections made along with the 2D seismic lines also provide the sub-surface structural trends and leads to the identification of prospect areas.

Following this new process not only saves time and costs but also makes it easier to identify and select target areas for 3D seismic data acquisition. Application of this modern day space technology in conjunction with other ground information, can help exploration and production companies in data modeling prior to their 3D seismic data acquisition thereby significantly reducing time and costs

The main conclusions drawn from the study were:

- Remote sensing data helped in geological, structural interpretation, demarcation of geomorphology, identification of alteration thermal anomaly and identification of micro-seepage mapping.
- Through geological and geophysical seismic interpretation and the use of orthorectified satellite images, it provided insights on the selection of areas to plan 3D seismic surveys for further exploration programs.
- The Two Way Time Maps clearly brought out the Lead area. This was further validated by the Lineament trend evaluated through Satellite Imagery studies/analysis.
- The presence of high thermal anomaly spots within the Lead area was a further validation of hydrocarbon accumulation.
- The Time Geologic sections drawn across the Lead area corroborated the presence of good structural lead in this part.



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