

Geometrics Knowledgebase

Exploration for Iron Ore

One of the primary uses of our portable (land) magnetometers is mineral exploration. And iron ore is one of the easiest targets because of its magnetic properties. Because of this, magnetometer surveys are almost always part of the initial phase of any iron exploration program.

Briefly stated, the exploration strategy is to use portable magnetometers to measure the magnetic field strength over the entire survey area by traversing it along many parallel survey lines with the magnetometer. This field work provides measurements that are used to construct a magnetic anomaly map. Using this map, an economic geologist or geophysicist will infer the probable location of iron concentrations. Based on their assessment, drilling or sampling sites are chosen and, using the chemical assay of the samples, the iron ore reserves are calculated.

You or your customer should be working with a geologist or geophysicist who is familiar with the region where the prospect area is located. Conducting a magnetometer survey and making a useful anomaly map are inexpensive activities as compared with survey data interpretation, sampling, and assay work. If your customer wants to learn more about magnetic survey practice, a good way to start is by downloading and reading the free Application Manual for Portable Magnetometers on our Magnetometer Downloads web page.

<http://support.geometrics.com/kb/questions.php?questionid=50>