

OREMASTER MAGNETOMETER

Model 2

The OREMASTER MAGNETOMETER is a very sensitive magnetic meter designed to react to a detectable magnetic mineralized vein for field prospecting and away from man made metal objects.

All hard metal objects should be kept away from the meter when it is used in prospecting as the presence of these objects may cause a reading on the meter.

The normal reading on the meter is usually from 0 to 1, or 2 divisions on either side of 0. In some areas the variation may be greater. This is from the pull of the North Pole on the sensitive meter.

Should you enter a house the variation may be greater due to the plumbing and other metal objects in the building that may have a magnetic field or fields. Placing the meter close to an electric range, refrigerator or near the speaker of a radio or TV, etc., will usually result in a higher reading.

The magnetic ore sample which you receive with the meter has a yellow mark. You will notice that when the yellow spot is placed close to the end of the meter that the meter hand swings to a full scale reading. With the magnetic ore sample you will find an aluminum metal plate. You will notice that when testing the ore sample with the meter by placing the metal between the ore sample and the meter that you can still detect the presence of the ore sample with the meter right through the metal plate. A highly magnetic vein will cause the meter hand to react the same. The highest reading on the magnetic vein is when the meter is over the center of the fields. As one approaches a magnetic vein the reading becomes highest and it makes no difference if the reading is positive (to the right) or negative (to the left) of the zero. The highest reading is when you are directly over the vein and as you pass away from the vein reading will drop back towards zero. The quicker the high reading is received and the quicker it drops back toward zero, when moving across a vein, the smaller the vein is. The longer the time that the high reading is sustained, when crossing a vein the larger vein is. This may be measured from an inch to several inches or feet and in some cases several hundreds of feet if the vein or ore body is that large.

Then a vein is found and this magnetic meter gives a full scale reading this vein may be tracked by following the direction that maintains the highest reading. Then passing away from the vein, the reading will decrease.

The instrument when in use, should be held flat with the surface it is used over face up and about waist high so the meter pointer and controls may be easily seen. Instrument should be held flat and

not tilted, endwise, to give the most accurate indication. The front end of the case is the most sensitive spot. To test the Ore samples or magnetic ore concentrations in a vein.

Range Control, This meter has a Range Control to rezero the meter when a full scale reading is received to give several ranges of meter deflections.

Polarity Switch.

A polarity switch is incorporated to control the Polarity of the meter. Should a full scale meter reading be obtained from a vein, sample, or ore body, (you can use the ore samples you received with the magnetometer to demonstrate this) where the meter pointer may swing to the extreme LEFT (1) Turn the black control pointer knob to the (+) position. (2) Turn the Range control from the ZERO (0) position to the right. (3) Very slowly and carefully until the meter pointer moves back to the center of the scale to 0. Move the meter toward the magnetic source from where you received the increase reading (vein, ore body or magnetic ore sample) and should you again receive a full scale meter reading to the left, a very slight adjustment of the Range control knob will move the meter pointer back to zero. This enables one to locate the highest concentration of magnetic ore in an ore body, where the field is the most intense. Should you pass the vein, the meter pointer will immediately reverse the reading, or move back toward zero.

When detecting a magnetic field in an ore body, the reading depends on which side of the magnetic field that the instrument is on, when the first reading is received.

If the meter pointer should have moved to the extreme right, then to move the meter pointer back to zero proceed as follows. (1) Turn the Range control knob pointer to the left to the (-) negative position. (2) Turn the Range control knob from the 0 (OFF) position very slowly to the right. This will bring the meter pointer back to the center of the scale to 0. This may be repeated as many times as necessary or required to locate the center of a magnetic deposit.

One should hold the instrument as steady as possible and retain the same direction of travel when crossing a vein for the most accurate indication.

If one reverses the direction that the meter is pointed, a reverse reading will be obtained.

The ore sample received with the instrument will make a fine demonstration sample to represent a magnetic vein, or ore body in experimenting and practicing with the instrument. You will notice that by placing the ore sample in front of the instrument (usually 2 or 3 inches) that you will get a full scale meter deflection on one side of the meter scale, then by revolving or turning another side of the sample toward the front end of the instrument, a full scale reverse reading will be had. This demonstrates how left and right meter readings may be had when approaching a highly magnetic vein. When through using the Range control, be sure to turn the Range control