The magnetic field measured at the position of the sensor $\vec{r}_s = \{x_s, y_s, z_s\}$ that is generated by a mine at position $\vec{r}_m = \{x_m, y_m, z_m\}$ with magnetic dipole $\vec{\mu} = \{\mu_x, \mu_y, \mu_z\}$ is

$$\vec{B}(\vec{r}) = \frac{C}{r^3}\left(\frac{3\left(\vec{r}\cdot\vec{\mu}\right)\vec{r}}{r^2} - \vec{\mu}\right) = \{B_x, B_y, B_z\} \tag{1}$$

where $C \sim 4\pi \times 10^{-7}\ T.m/A$ is a constant,

$$\begin{aligned}\vec{r} &= \{x_s - x_m, y_s - y_m, z_s - z_m\}\\ r &= \left[(x_s - x_m)^2 + (y_s - y_m)^2 + (z_s - z_m)^2\right]^{1/2}\end{aligned} \tag{2}$$

and

$$\begin{aligned}B_x &= \frac{C}{r^3}\left(\frac{3\left((x_s - x_m)\mu_x + (y_s - y_m)\mu_y + (z_s - z_m)\mu_z\right)(x_s - x_m)}{r^2} - \mu_x\right)\\ B_y &= \frac{C}{r^3}\left(\frac{3\left((x_s - x_m)\mu_x + (y_s - y_m)\mu_y + (z_s - z_m)\mu_z\right)(y_s - y_m)}{r^2} - \mu_y\right)\\ B_z &= \frac{C}{r^3}\left(\frac{3\left((x_s - x_m)\mu_x + (y_s - y_m)\mu_y + (z_s - z_m)\mu_z\right)(z_s - z_m)}{r^2} - \mu_z\right)\end{aligned} \tag{3}$$