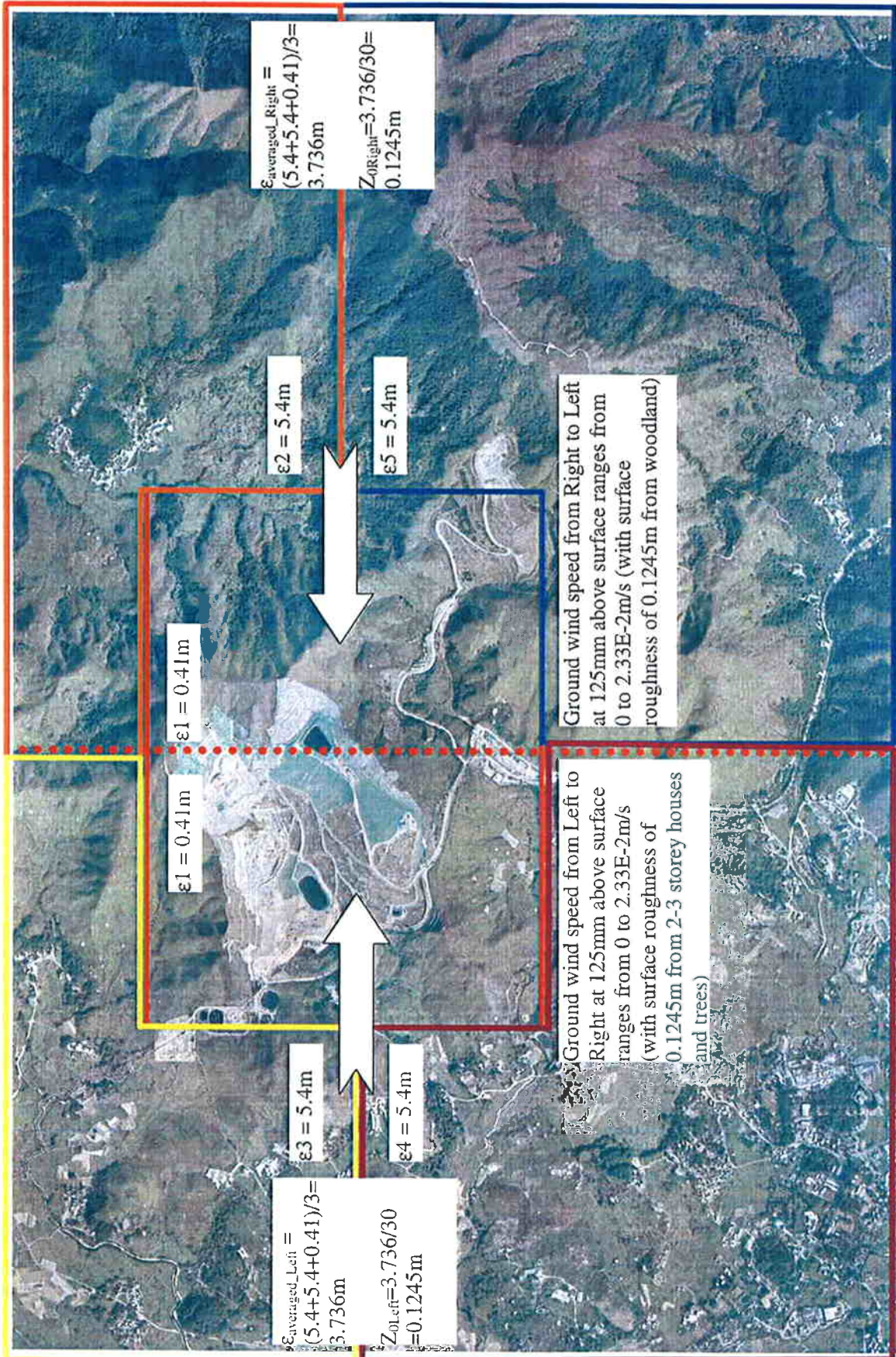


Appendix 3.5

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**Surface Roughness  
Calculation in the area**



$\epsilon_{\text{averaged\_Right}} = (5.4 + 5.4 + 0.41) / 3 = 3.736\text{m}$   
 $Z_{0\text{Right}} = 3.736 / 30 = 0.1245\text{m}$

$\epsilon_2 = 5.4\text{m}$

$\epsilon_5 = 5.4\text{m}$

$\epsilon_1 = 0.41\text{m}$

$\epsilon_1 = 0.41\text{m}$

$\epsilon_3 = 5.4\text{m}$

$\epsilon_4 = 5.4\text{m}$

$\epsilon_{\text{averaged\_Left}} = (5.4 + 5.4 + 0.41) / 3 = 3.736\text{m}$   
 $Z_{0\text{Left}} = 3.736 / 30 = 0.1245\text{m}$

Ground wind speed from Right to Left at 125mm above surface ranges from 0 to 2.33E-2m/s (with surface roughness of 0.1245m from woodland)

Ground wind speed from Left to Right at 125mm above surface ranges from 0 to 2.33E-2m/s (with surface roughness of 0.1245m from 2-3 storey houses and trees)