ABSTRACT. Let $G = (V, E)$ be a simple graph. The complement of the line graph of $G$, denoted by $\overline{L(G)}$, has vertex set $E$, two vertices $e_1$ and $e_2$ are adjacent in $\overline{L(G)}$ if $e_1$ and $e_2$ are not incident in $G$. Let $P$ be any of the properties: Hamiltonian, traceable, Hamilton-connected, Hamilton-laceable, and pancyclic. I will characterize graphs such that the complements of their line graphs have property $P$.

Moreover, these characterizations lead to linear recognition algorithms.