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Ze Min Zeng* (zmzeng@math.wustl.edu), Department of Mathematics, Washington University in St. Louis, St. Louis, MO 63130. *Set theoretic complete intersection of ideals in a regular affine algebra.*

Let A be a regular ring of dimension $d \geq 3$ containing an infinite field k and n be an integer such that $2n \geq d + 3$. Let P be a projective A -module such that $P \oplus A \approx A^{n+1}$. It is proved that for any generic section α of P^* , $\alpha(P)$ is a set theoretic complete intersection ideal of A . As consequences, a locally complete intersection ideal consisting of points in a regular affine k -algebra is a set theoretic complete intersection if its corresponding class in the Grothendieck Group is torsion; a locally complete intersection curve in a smooth affine \mathbb{C} -algebra with trivial conormal bundle is a set theoretic complete intersection if its corresponding class in the Grothendieck Group is torsion. (Received August 25, 2005)