

**Table E.II.1: ECDA Data Elements**

<b>Data Elements</b>	<b>Indirect Inspection Tool Selection</b>	<b>ECDA Region Definition</b>	<b>Use and Interpretation of Results</b>
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**PIPE RELATED**

<i>Material (steel, cast iron etc) and grade</i>	<i>ECDA not appropriate for nonferrous materials</i>	<i>Special considerations should be given to locations where dissimilar metals are joined</i>	<i>Can create local corrosion cells when exposed to the environment.</i>
<i>Diameter</i>	<i>May reduce detection capability of indirect inspection tools</i>		<i>Influences CP current flow and interpretation of results</i>
<i>Wall thickness</i>			<i>Impacts critical defect size and remaining life predictions</i>
<i>Year Manufactured</i>			<i>Older pipe materials typically have lower toughness levels, which reduces critical defect size and remaining life predictions.</i>
<i>Seam Type</i>		<i>Locations with pre-1970 low-frequency ERW pipe with increased selective seam corrosion susceptibility may require separate region</i>	<i>Older pipe typically has lower weld seam toughness that reduces critical defect size. Pre-1970 ERW pipe seams may be subject to higher corrosion rates than the base metal.</i>
<i>Bare pipe</i>	<i>Limits ECDA application. Less available tools</i>	<i>Segments with bare pipe in coated pipelines should be in separate regions</i>	<i>Specific ECDA methods provided</i>

**CONSTRUCTION RELATED**

<i>Year installed</i>			<i>Impacts time over which coating degradation may occur, defect population estimates, and corrosion rate estimates</i>
<i>Route changes/modifications</i>		<i>Changes may require separate regions. Year installed</i>	