THE RIGHT TECHNOLOGY FOR EVERY INTEGRITY CHALLENGE

BAKER HUGHES a GE company

- Optimum specification
- Good specification
- Available
- Consult BHGE

Tools not to scale

INTEGRITY ASSESSMENT

		EmatScan™ CD Superior accuracy, POD and POI	**UltraScan™ CD EDGE** Higher resolution, superior accuracy to optimize dig programs	**UltraScan™ CDP** Higher resolution, high accuracy crack inspection	**UltraScan™ Duo** Most sophisticated anomaly imaging for cracks and metal loss	**UltraScan™ WMP** Higher resolution, higher accuracy direct wall measurement	**TranScan™ TFI** Detect axial flaws with confidence	**New MagneScan™ SHRP & VECTRA GEMINI HD** Superior accuracy to optimize dig programs	**New MagneScan™ SHR & VECTRA GEMINI** High accuracy, triaxial MFL with caliper	**New MagneScan™ HR** Next generation high resolution combination MFL	**MagneScan™ HR** High resolution MFL inspection	**CPIG** High resolution MFL inspection of complex or unpiggable geometries	**GEOPIG™** High resolution deformation and strain assessment	**PROFILE™ & CalScan™ EP** Line proving and validating construction	**ThreatScan™** Detect pipeline impacts or third party interference	**Pipeline strain assessment (IMU Strain)**	**Mechanical damage assessment (IMU Strain)**	**Corrosion growth assessment (PIDA)**	**Crack assessment (Runcom™)**	**Pipeline risk assessment (PICA)**	**Fitness-for-service assessment**
OPERATIONAL	Gas medium	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Liquid medium	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Multi/dual-diameter	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Thick wall pipe	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	High-flow velocity	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Short traps		●			●	●	●	●	●	●	●	●	●	●						
	Unknown cleanliness	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	CRA clad pipe	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Baseline inspection	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●		●	●
CORROSION & METAL LOSS	External				●	●	●	●	●	●	●	●	●						●		●	●
	Internal				●	●	●	●	●	●	●	●	●						●		●	●
	Pinholes					●		●	●	●	●	●							●		●	●
	Complex corrosion				●	●	●	●	●	●	●	●	●						●		●	●
	Highly corroded				●	●	●	●	●	●	●	●	●						●		●	●
	Narrow axially oriented				●	●	●	●	●	●	●	●	●						●		●	●
	Circumferentially oriented				●	●	●	●	●	●	●	●	●						●		●	●
	Wall thinning/erosion				●	●													●		●	●
CRACKING	Axial cracks	●	●	●	●		●													●	●	
	Hydrogen induced cracks	●	●	●	●		●													●	●	
	Hook/seam weld anomalies	●	●	●	●		●													●	●	
	Seam weld lack of fusion	●	●	●	●		●													●	●	
	Fatigue cracks	●	●	●	●		●													●	●	
	Shrinkage cracks	●	●	●	●		●													●		
	Circumferential cracks		●	●				●	●	●	●						●			●	●	
	Stress Corrosion Cracking (SCC)	●	●	●	●															●	●	
MANUFACTURING & CONSTRUCTION	Girth weld anomalies							●	●	●	●	●					●			●	●	
	Spiral weld anomalies						●	●	●	●	●	●					●			●	●	
	Seam weld anomalies	●	●	●	●		●													●	●	
	Laminations & midwall defects				●	●		●	●	●	●									●	●	
	ID expansions/Roof topping					●		●	●	●	●	●	●	●								
	Wrinkle bends	●	●	●		●	●	●	●	●	●	●	●	●			●				●	●
	Centerline mapping						●	●	●	●	●	●	●				●					
	Bend characterization	●	●	●	●	●	●	●	●	●	●	●	●	●			●					
THIRD PARTY DAMAGE & GEOMETRY	Plain dents	●	●	●	●	●	●	●	●	●	●	●	●	●				●				●
	Dents on welds	●	●	●	●	●	●	●	●	●	●	●	●	●				●				●
	Complex geometry dents	●	●	●	●	●	●	●	●	●	●	●	●	●				●				●
	Dent strain and fatigue assessment (PIDA)						●	●	●	●	●	●	●	●				●				●
	Ovality							●	●	●	●	●	●	●				●				●
	Gouging				●	●	●	●	●	●	●	●										●
	Hard scale				●	●	●	●	●	●	●	●	●	●								
	Real time third party strikes															●		●			●	●
	Illegal tapping & pilferage					●	●	●	●	●	●	●									●	
GEOHAZARD	Buckle/wrinkle					●	●	●	●	●	●	●	●	●		●			●			●
	Bending strain						●	●	●	●	●	●	●	●		●					●	
	Axial strain with AXISS™							●	●							●						
	Pipeline movement							●	●	●	●	●	●	●		●					●	
MULTIPLE THREATS	Cracks in metal loss	●	●	●	●															●		●
	Cracks in dents	●			●		●	●	●	●	●	●										●
	Metal loss on dents				●	●	●	●	●	●	●	●						●				●
	Defects interacting with strain							●	●	●	●	●				●					●	●