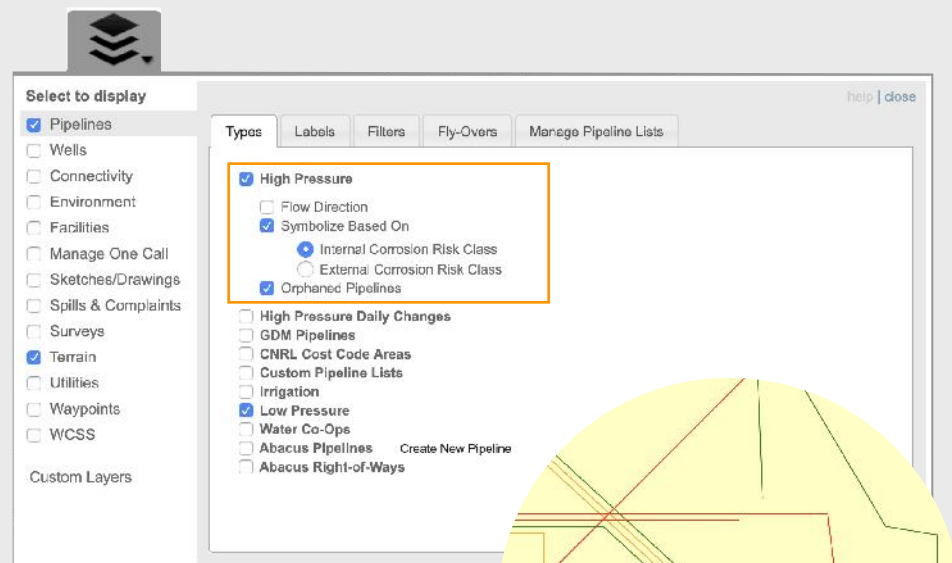


PIPELINE INTEGRITY TRIAGE - Hazard Classification & Mitigation Guidance

PIPELINE INTEGRITY MANAGEMENT REPORTS
Integrated into AbaData

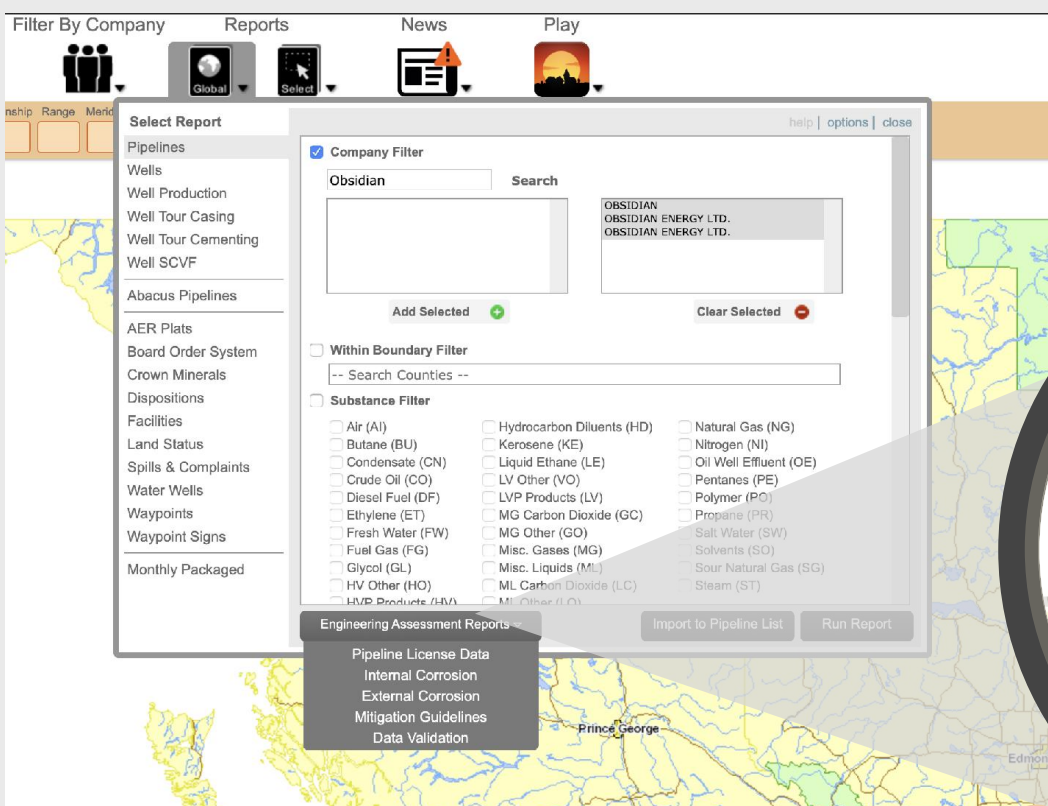


Symbolize Map View Display
-Risk Classification
-Internal & External Corrosion

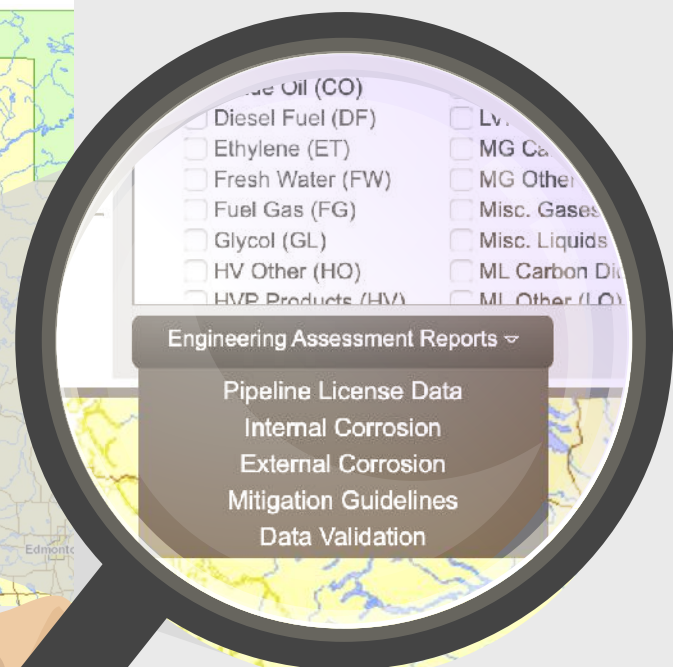


RISK CLASSIFICATION

- LOW
- MODERATE
- HIGH



Global & Map Selection Reporting
Engineering Assessment Reports
-Risk Assessment
-Corrosion Mitigation

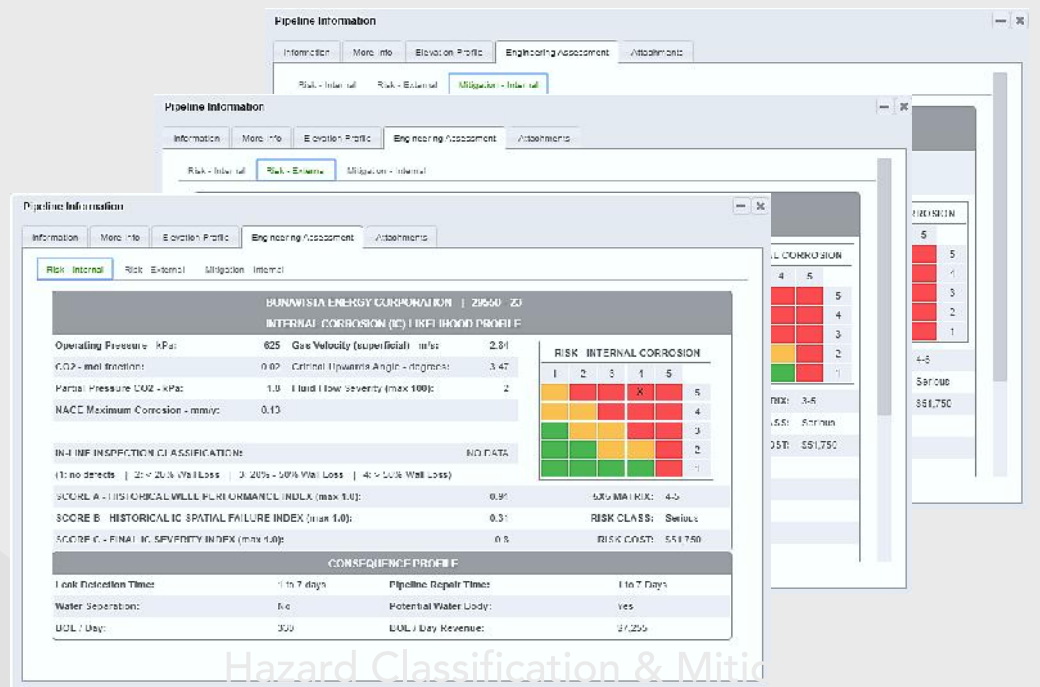




Pipeline Data Cards

Engineering Assessment Tabs

- Risk Assessment
 - Internal & External Corrosion
- Mitigation Guidance
 - Internal Corrosion



AN OWNER-USER PROGRAM FOR PIPELINES

- Monthly update of corrosion susceptibility and risk for each pipeline within AbaData
- Mitigation guidance aligns mitigation with actual corrosion severity
 - Stops existing corrosion from growing
 - Prevents new corrosion from starting

**Increasing Likelihood of Pipeline Leak
Internal Corrosion**

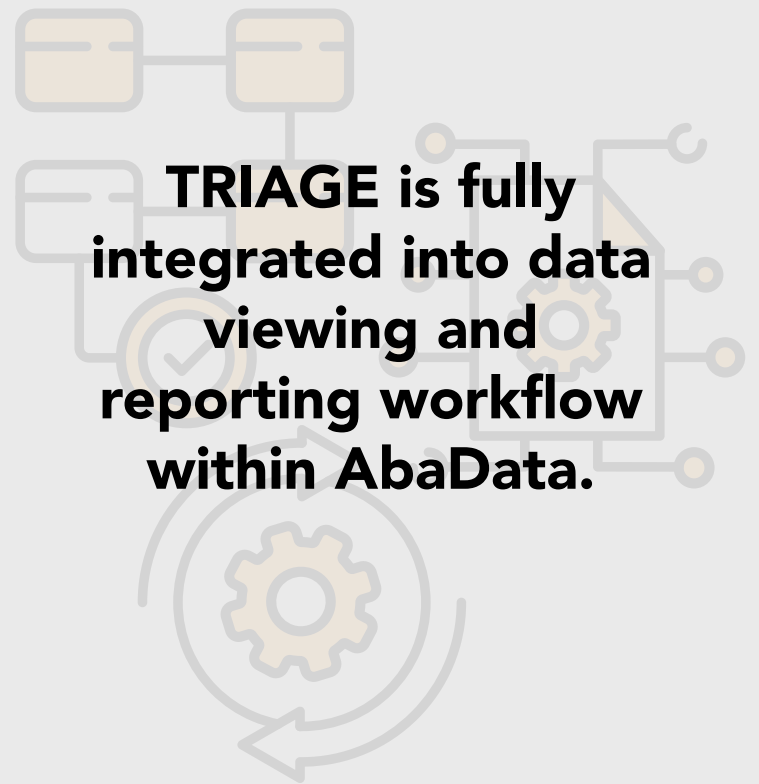
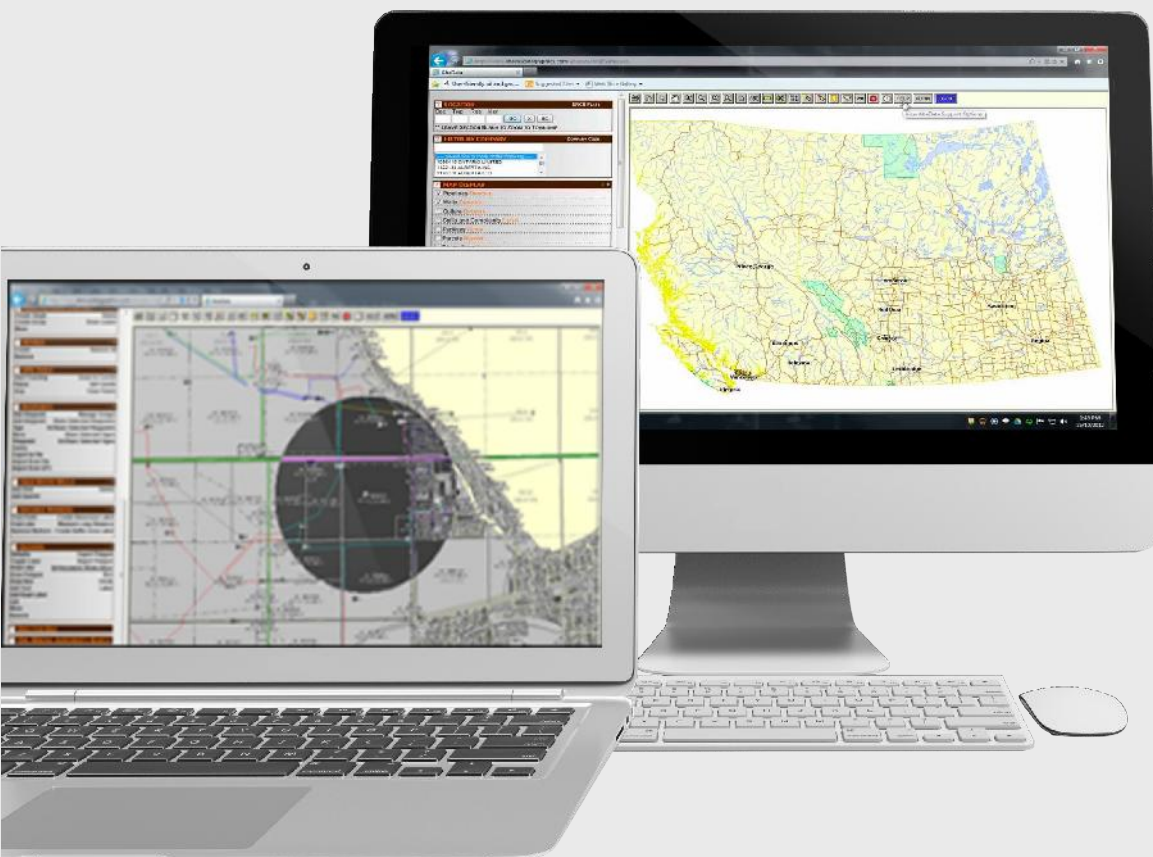
SEGMENT COUNT		1	2	3	4	5	SUM	%
Consequence Business Loss (\$)	5	36	29	7	21	5	98	7%
	4	38	86	42	42	14	222	16%
	3	27	125	107	47	17	323	24%
	2	71	110	52	34	10	277	21%
	1	10	9	10	1		30	2%
SUM		182	359	218	145	46		
PERCENT OF TOTAL		19%	38%	23%	15%	5%		

Corporate Summary - Internal Corrosion

COUNT		RISK CLASS
234	25%	SERIOUS
478	50%	MODERATE
238	25%	LOW
950	100%	TOTAL



- In-house ownership of pipeline integrity hazard assessment & response
- A hierarchy of preferred mitigation options for each pipeline within AbaData
 - Field, operations apply their knowledge and experience to create the best work schedules
 - Creates industry-leading Agenda for field chemical team meetings
 - Eliminates historical misallocation of chemicals onto low-risk pipelines

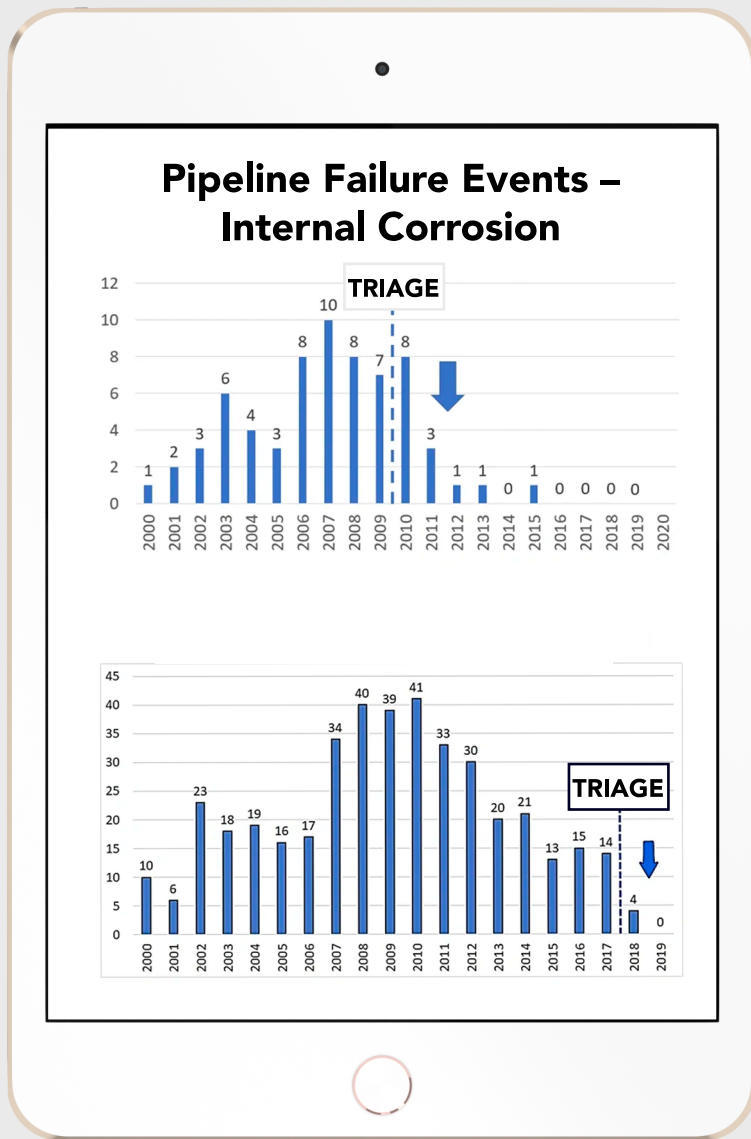


TRIAGE is fully integrated into data viewing and reporting workflow within AbaData.



THE FOUNDATION OF CORPORATE SLMS INTEGRITY MANAGEMENT PROGRAMS



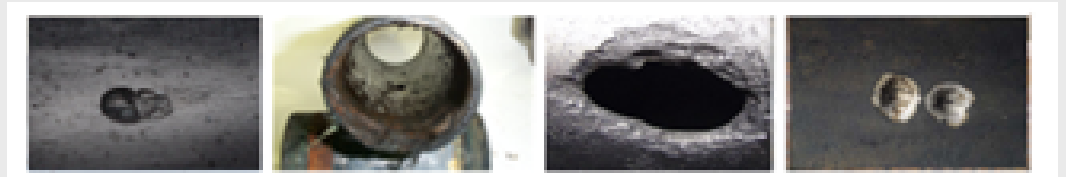


TRIAGE

has Proven more Effective than Industry Standard Methods

Elimination of internal corrosion pipeline failures

- 8,000 operating production gathering pipelines
- \$7,000,000 / year combined chemical cost savings



BASELINE HAZARD ASSESSMENT

- Corrosion by produced fluids
- CO₂ / H₂S / bacteria
- Water-film transport
- Stagnant water traps

BLIND-SPOT INTEGRITY HAZARDS

- Unique from all other methods
- Application of data pattern analytics onto 40-years of AER data revealed how well upstream behaviour influences corrosion
 - Start-up production surges
 - Up-lift of biomass sludge



TRIAGE considers corrosion hazards otherwise overlooked by standard industry methods

TRIAGE

CORROSION HAZARD TRIANGLE

Positioning Field, Chemical Teams to Better Align Mitigation Costs to Actual Pipeline Conditions

