

Track No.	Track Name	Session Title	Paper Number	Paper Title
1	Pipeline Safety Management Systems	Competency	IPC2018-78148	Management System Competency Model and Development Program
1	Pipeline Safety Management Systems	Competency	IPC2018-78321	Achieving and demonstrating pipeline engineering capability ? the role of competency standards, and their use for qualifications and registration.
1	Pipeline Safety Management Systems	Competency	IPC2018-78477	COMPETENCY STANDARDS FOR THE PIPELINE INDUSTRY
1	Pipeline Safety Management Systems	Industry/Pipeline Performance	IPC2018-78150	Safety Culture Assessment & Continuous Monitoring Approach
1	Pipeline Safety Management Systems	Industry/Pipeline Performance	IPC2018-78285	Accelerating Industry Performance through Collaborative Continual Improvement
1	Pipeline Safety Management Systems	Industry/Pipeline Performance	IPC2018-78407	How Do We (Actually) Know Our Quality Is Improving?
1	Pipeline Safety Management Systems	Industry/Pipeline Performance	IPC2018-78632	Asset Integrity Management System Audits For The National Gas Company Of Trinidad and Tobago
1	Pipeline Safety Management Systems	Industry/Pipeline Performance	IPC2018-78744	Are Pipelines Being Held to an Unreasonably High Standard of Performance?
1	Pipeline Safety Management Systems	Pipeline safety/integrity	IPC2018-78585	Operational Change Assessments - A Proactive Approach to Managing Pipeline Integrity
1	Pipeline Safety Management Systems	Pipeline safety/integrity	IPC2018-78597	ARE INTEGRITY MANAGEMENT PROGRAMS MAKING A DIFFERENCE?
1	Pipeline Safety Management Systems	Pipeline safety/integrity	IPC2018-78656	Implementing API RP 1173, Pipeline Safety Management Systems
1	Pipeline Safety Management Systems	Regulatory	IPC2018-78151	Is the Push for More Prescriptive Regulation Making Us Less Safe?
1	Pipeline Safety Management Systems	Regulatory	IPC2018-78160	Is Public Safety Impacted by the Multiple Regulatory Regimes for Gas Pipelines and Networks?
1	Pipeline Safety Management Systems	Regulatory	IPC2018-78240	COMPLIANCE OVERSIGHT OF OPERATORS IMP PROGRAM FOR PIPELINES ? A RISK BASED EVALUATION APPROACH INCORPORATING SAFETY CULTURE
1	Pipeline Safety Management Systems	Regulatory	IPC2018-78549	Special Permits, Waivers, and Other Technology Requests - A Review of Requests that Fall Outside of Codified Rules
1	Pipeline Safety Management Systems	Risk-based/informed decision making	IPC2018-78149	INTEGRITY RISK-INFORMED DECISION MAKING

1	Pipeline Safety Management Systems	Risk-based/informed decision making	IPC2018-78512	Formalizing Integrity Management Workflows: Towards Integrity Process Modelling
2	Project Management, Design, Construction and Environmental Issues	Environmental Issues	IPC2018-78319	Evolving Standards of Indigenous Peoples Engagement and Managing Project Risk
2	Project Management, Design, Construction and Environmental Issues	Environmental Issues	IPC2018-78372	Using 2D and 3D Oil Spill Trajectory and Fate Models to Assess the Risk of Accidental Crude Oil Releases Along the Enbridge Line 3 Replacement Program Pipeline
2	Project Management, Design, Construction and Environmental Issues	Environmental Issues	IPC2018-78808	CSA Z663: Land use planning in the vicinity of pipeline systems
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78146	Automated Creation of the Pipeline Digital Twin During Construction ? Improvement to Construction Quality and Pipeline Integrity.
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78358	Post-Construction ILLI Execution Planning Guidelines for Pipeline Quality Verification
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78523	The Application of a Knowledge Transfer Taxonomy to Pipeline Construction Inspection Best Practices Learning
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78580	How dry is dry?
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78658	Creating a Digital Pipeline During Pipeline Construction
2	Project Management, Design, Construction and Environmental Issues	Project Construction	IPC2018-78666	A Canadian Operator Based Framework for Pipeline Pressure Tests: Lessons Learned
2	Project Management, Design, Construction and Environmental Issues	Project Design I	IPC2018-78205	Inelastic Deformation of Pipelines Induced by Temporary Ground Deformations
2	Project Management, Design, Construction and Environmental Issues	Project Design I	IPC2018-78281	Integrity Assessment of Pipelines with Ovality

2	Project Management, Design, Construction and Environmental Issues	Project Design I	IPC2018-78289	Combining Expert Knowledge and Automation to Maximize Pipeline Route Optionality and Defensibility ? A Case Study of the Aurora Pipeline
2	Project Management, Design, Construction and Environmental Issues	Project Design I	IPC2018-78304	Evaluation of Hydraulic Fracturing Models and their Limitations to Predict No-Drill Zones for Horizontal Directional Drilling
2	Project Management, Design, Construction and Environmental Issues	Project Design I	IPC2018-78672	Strengthening the Current Class Location Designation System
2	Project Management, Design, Construction and Environmental Issues	Project Design II	IPC2018-78682	Well-Integrated Design of Surge Relief Systems in Oil Storage Facilities
2	Project Management, Design, Construction and Environmental Issues	Project Design II	IPC2018-78736	Numerical analysis of buried pipelines subject to slope failure and seasonal temperature variation
2	Project Management, Design, Construction and Environmental Issues	Project Design II	IPC2018-78782	What Lies Beneath - Geophysical Approaches for Assessing Trenchless Water Crossings
2	Project Management, Design, Construction and Environmental Issues	Project Management	IPC2018-78067	Earned Schedule and the use of Schedule Execution Reporting Metrics
2	Project Management, Design, Construction and Environmental Issues	Project Management	IPC2018-78230	Utilizing Value Management to Increase Project Competiveness
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking I	IPC2018-78233	A More Accurate and Precise Method for Large Metal Loss Corrosion Assessment
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking I	IPC2018-78315	Development and Experiences of a Circumferential Stress Corrosion Cracking Management Program
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking I	IPC2018-78408	Experimental-numerical assessment of vintage pipe and girth weld with a geometrically complex corrosion feature
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking I	IPC2018-78564	Complex Circumferential Stress corrosion Cracking - Identification, Sizing and Consequences for the Integrity Management Program
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking I	IPC2018-78608	Implementation of Reliability-based Criteria for Corrosion Assessment

3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking II	IPC2018-78293	Modification Of Crack Assessment Model Inputs For Application On Spiral Welded Pipe
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking II	IPC2018-78392	DIFFERENCES IN NEAR-NEUTRAL pH CRACK GROWTH BEHAVIOR BETWEEN OIL PIPELINES AND GAS PIPELINES AND CORRESPONDING CRACK GROWTH MITIGATION STRATEGIES
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking II	IPC2018-78587	Crack Shape Development for Leak-before-Break Analysis in Pipelines
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking II	IPC2018-78691	EVALUATION OF CRACK GROWTH AND MATERIAL TOUGHNESS EFFECTS ON PROBABILITY OF PIPELINE FAILURE
3	Pipeline and Facilities Integrity	Corrosion and Environmental Cracking II	IPC2018-78723	Fracture Toughness Testing and Its Implications to Engineering Fracture Mechanics Analysis of Energy Pipelines
3	Pipeline and Facilities Integrity	Established ILI Technologies I	IPC2018-78014	Modeling Pipeline Metal Loss Defects at Tool Speed
3	Pipeline and Facilities Integrity	Established ILI Technologies I	IPC2018-78294	Evaluation Of Corrosion Growth Prediction Methodologies Using Burst Pressure Comparisons From Repeated In-line Inspections
3	Pipeline and Facilities Integrity	Established ILI Technologies I	IPC2018-78642	Development of Pinhole Corrosion Management using MFL
3	Pipeline and Facilities Integrity	Established ILI Technologies II	IPC2018-78488	Do You Have Wrinkles? A Strain and Stress-Based Approach for the Assessment of Wrinkles Reported by In-Line Inspection
3	Pipeline and Facilities Integrity	Established ILI Technologies II	IPC2018-78601	ACHIEVING NORTH AMERICAN RECORD FOR LONGEST INTELLIGENT INSPECTION OF A NATURAL GAS PIPELINE
3	Pipeline and Facilities Integrity	Established ILI Technologies II	IPC2018-78750	Critical Level Assessment from ILI Data
3	Pipeline and Facilities Integrity	Established ILI Technologies III	IPC2018-78346	EMAT? a Basis for a Comprehensive System-Wide Crack Management Program
3	Pipeline and Facilities Integrity	Established ILI Technologies III	IPC2018-78522	In-Line Inspection in Lieu of Hydrostatic Testing for Low Frequency Electric Resistance Welded Pipe
3	Pipeline and Facilities Integrity	Established ILI Technologies III	IPC2018-78554	A Sensitivity Study ? Effects of Toughness Values on Fatigue Crack Growth Analysis of Just-Survived Flaws Following a Pressure Test
3	Pipeline and Facilities Integrity	Established ILI Technologies III	IPC2018-78573	Exceeding Limitations - Ultrasonic Crack inspections become feasible for Liquid Natural Gases
3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78018	An Investigation on Microstructural Evolution and Potential Risk Waiving Post Bend Heat Treatment during Hot Induction Bending of X70 Steel Pipe

3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78118	Corrosion Growth Modeling by Learning A Dynamic Bayesian Network from Multiple In-line Inspection Data
3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78316	An Investigation of the Load Carrying Capacity of Pipelines Under Accidental and Longitudinal Moving (Sliding) Loads
3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78338	Fitness for Service Analysis of the Circumferential Extent of Corrosion in Pipelines
3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78577	Understanding Pipeline Strain Conditions ? Case Studies between ILI Axial and ILI Bending Measurement Techniques
3	Pipeline and Facilities Integrity	Fitness for Service	IPC2018-78636	Using Finite Element Analysis to Prioritize ILI Calls for Combined Features: Dents in Bends
3	Pipeline and Facilities Integrity	ILI Performance Validation	IPC2018-78635	Development of an Industry Test Facility and Qualification Process for ILI technology Evaluation and Enhancements - Performance Evaluation Phase
3	Pipeline and Facilities Integrity	ILI Performance Validation	IPC2018-78751	THRESHOLD GEOMETRICAL DIMENSIONS OF STAGE II CRACKS VERSUS RESOLUTION OF CRACK-DETECTION TECHNIQUES
3	Pipeline and Facilities Integrity	ILI Performance Validation	IPC2018-78770	Integration of Data from Multiple In-line Inspection Systems to Improve Crack Detection and Characterization
3	Pipeline and Facilities Integrity	In the ditch NDE	IPC2018-78189	Adaptive Ultrasonic Imaging of Electric Resistance Welded Pipeline Seams
3	Pipeline and Facilities Integrity	In the ditch NDE	IPC2018-78284	Interaction Rule Guidance for Corrosion Features Reported by ILI
3	Pipeline and Facilities Integrity	In the ditch NDE	IPC2018-78521	Application of Wide-Band Ultrasound for the Detection of Oblique Crack Features in Oil and Gas Pipelines
3	Pipeline and Facilities Integrity	In the ditch NDE	IPC2018-78538	Calibration of a Nondestructive Toughness Tester (NDTT) for Measuring Fracture Toughness of Pipeline Steel
3	Pipeline and Facilities Integrity	In the ditch NDE	IPC2018-78704	Ultrasonic NDE Technology Comparison for Measurement of Long Seam Weld Anomalies in Low Frequency Electric Resistance Welded Pipe
3	Pipeline and Facilities Integrity	Inspection	IPC2018-78224	Microwave Sensor Array for Corrosion Prediction in Steel Tank Bottoms
3	Pipeline and Facilities Integrity	Inspection	IPC2018-78421	Advanced EMAT Crack Tool for Unpiggable Pipelines
3	Pipeline and Facilities Integrity	Inspection	IPC2018-78443	Advancements in Pigging Valve and Ultrasonic Tool Technologies allow for In-Line Inspections of Formerly Unpiggable Lines

3	Pipeline and Facilities Integrity	Integrity Management	IPC2018-78176	Vibration and Fatigue Failures at Pipeline Facilities
3	Pipeline and Facilities Integrity	Integrity Management	IPC2018-78379	Risk?Based Integrity Decision Making for Lateral Piping
3	Pipeline and Facilities Integrity	Integrity Management	IPC2018-78425	Remaining strength in pressure vessels with pitting type metal loss: Part 1
3	Pipeline and Facilities Integrity	Integrity Management	IPC2018-78544	Root Cause Analysis of an Above-ground Pipeline with Stress Corrosion Cracking
3	Pipeline and Facilities Integrity	Integrity Management Operational Considerations	IPC2018-78376	Do We Need a Safe Excavation Pressure for Dented Pipelines: How Should it Be Defined?
3	Pipeline and Facilities Integrity	Integrity Management Operational Considerations	IPC2018-78717	Liquid Pipeline Location Specific Cyclic Pressure Determination
3	Pipeline and Facilities Integrity	Integrity Management Performance Measures	IPC2018-78413	Analysis of the National Energy Board Pipeline Integrity Performance Measures
3	Pipeline and Facilities Integrity	Integrity Management Performance Measures	IPC2018-78423	A method to analyze the impact of inline inspection accuracy on integrity management program planning of pipelines
3	Pipeline and Facilities Integrity	Integrity Management Performance Measures	IPC2018-78604	An ILI Based Program That Prevents Reoccurrence of Post ILI Failures Seen in Industry
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling I	IPC2018-78247	An Authoritative Comparison of Remaining Life Assessments for Pipeline Dents
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling I	IPC2018-78394	HIGH pH CRACK GROWTH SENSITIVITY TO UNDERLOAD-TYPE OF PRESSURE FLUCTUATIONS
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling I	IPC2018-78405	STUDY ON TRANSITION OF STRESS CORROSION CRACKING TO SHARP EDGE CORROSION FOR A LIQUIDS PIPELINE
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling I	IPC2018-78433	Algorithms for the Strain Based Analysis of Dented Pipelines
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling I	IPC2018-78495	Evaluation of the fatigue crack growth behavior by experiments and numerical simulations on full-scale pipeline steels

3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling II	IPC2018-78540	Some Factors Affecting Initiation of Stress Corrosion Cracking of an X80 Pipe Steel in Near-Neutral pH Environment
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling II	IPC2018-78684	Improving the Accuracy of Traditional Dent Fatigue Analysis: A Method for Quantifying the Initial Damage Caused By Dent Formation
3	Pipeline and Facilities Integrity	Manufacturing Defects, Construction Defects, and Fatigue Modeling II	IPC2018-78720	Influence of Mean Load Pressure Fluctuations on Crack Growth Behavior in Steel Pipelines
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78162	Identifying Stress Concentrations on Buried Steel Pipelines using Large Standoff Magnetometry Technology
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78242	Bi-Directional Caliper Tool Development
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78466	Operational Experiences with Axial Strain Inline Inspection Tools
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78547	Implementation of a new Tool for Pipelines Integrity Evaluation: A Correlation between Local Strains and Hardness.
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78594	Breathing New Life to Aging Pipeline Infrastructure Using Unique Wireline Inspection Techniques and Pipe-Lining Technology
3	Pipeline and Facilities Integrity	New ILI Technologies I	IPC2018-78655	Understanding Quantitative Performance of Large Standoff Magnetometry in Locating Live Gas Pipeline Anomalies with Stress Estimation
3	Pipeline and Facilities Integrity	New ILI Technologies II	IPC2018-78662	The Future of In-Line Inspection - Free-floating smart sensors
3	Pipeline and Facilities Integrity	New ILI Technologies II	IPC2018-78722	Validation of Computed Tomography Technology for Pipeline Inspection
3	Pipeline and Facilities Integrity	New ILI Technologies II	IPC2018-78762	A Case Study on SCC Management Using 10-inch EMAT ILI
3	Pipeline and Facilities Integrity	Non ILI Assessments	IPC2018-78251	Validate Crack Assessment Models With In-service and Hydrotest Failures
3	Pipeline and Facilities Integrity	Non ILI Assessments	IPC2018-78258	Non-contact Geomagnetic Localization of Pipeline Defects Using Empirical Mode Decomposition and Magnetic Gradient Tensor
3	Pipeline and Facilities Integrity	Non ILI Assessments	IPC2018-78314	An Investigation Into the Benefits of Employing Multiple Assessments Methods for High Risk Pipelines
3	Pipeline and Facilities Integrity	Non ILI Assessments	IPC2018-78465	Structure assessment using Instrumented Indentation Technique in terms of Strength, Toughness and Residual stress

3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78116	Condition Assessment For Optimizing Gasunie's Network Improvement Program
3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78130	Evaluation of Burst Pressures of Corroded Pipe Segments Using Three-dimensional Finite Element Analyses
3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78132	An Approach to Engineering Critical Assessment of Assets that cannot be Inline Inspected
3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78158	Reactivating a Legacy Pipeline ? Simulating ILI Run Behaviour, Operation Optimization, and Project Challenges
3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78159	Uncertainty Quantification of Nondestructive Techniques to Verify Pipeline Material Strength
3	Pipeline and Facilities Integrity	Organizational Factors - Development and Competency	IPC2018-78427	Overcoming Difficult to Inspect Multi-diameter, Low Pressure Gas Transmission Pipeline Challenges
3	Pipeline and Facilities Integrity	Outside Force Damage	IPC2018-78385	Full Scale Testing of Dent and Gouge Defects Under Axial Loading Performed with a Four-Point Bending Test Device
3	Pipeline and Facilities Integrity	Outside Force Damage	IPC2018-78616	Study of Safe Dig Pressure Level for Rock Dents in Gas Pipelines
3	Pipeline and Facilities Integrity	Outside Force Damage	IPC2018-78731	Determining Pipeline Depth of Cover at River Crossings by Data Integration
3	Pipeline and Facilities Integrity	Outside Force Damage	IPC2018-78771	Buried Pipe Span Ovality Assessment
3	Pipeline and Facilities Integrity	Outside Force Damage	IPC2018-78805	Effect of Residual Stress or Plastic Deformation History on Fatigue Life Simulation of Pipeline Dents
3	Pipeline and Facilities Integrity	Systems and Data	IPC2018-78255	A Strength Test Analysis Model and Its Practical Applications in PG&E Gas Transmission Pipeline Strength Test Projects
3	Pipeline and Facilities Integrity	Systems and Data	IPC2018-78364	Pipeline Data Analytics ? Enhanced Corrosion Growth Assessment through Machine Learning
3	Pipeline and Facilities Integrity	Systems and Data	IPC2018-78646	A web map solution designed as the data messenger for Colonial Pipeline Company
4	Operations, Monitoring, and Maintenance	Detailed Geohazard Assessments	IPC2018-78047	Pipeline Geohazard Risk Monitoring with Optical Fiber Distributed Sensors: Experience with Andean and Arctic Routes

4	Operations, Monitoring, and Maintenance	Detailed Geohazard Assessments	IPC2018-78129	Terrain Analysis and Geologic Hazards Assessment: A Comparison of the Objectives and Methods of Each, and the Benefits of Completing Both in Parallel
4	Operations, Monitoring, and Maintenance	Experimental Investigations and Testing	IPC2018-78121	Experimental Study on Wax Removal with Real Wax Deposits
4	Operations, Monitoring, and Maintenance	Experimental Investigations and Testing	IPC2018-78123	INVESTIGATION OF HEAVY SLUDGE FORMATION IN A CHEMICALLY INHIBITED SOUR GAS PIPELINE: HOW FAR DO WE HAVE TO GO?
4	Operations, Monitoring, and Maintenance	Experimental Investigations and Testing	IPC2018-78701	Predicting Drag Reduction in Turbulent Pipe Flow with Relaxation Time of Polymer Additives
4	Maintenance	Systems	IPC2018-78125	Monitoring of Pipeline RoU using Remote Sensing and GIS Techniques
4	Maintenance	Systems	IPC2018-78615	Time GIS and Sensors
4	Operations, Monitoring, and Maintenance	Geohazard Identification and Characterization	IPC2018-78571	InSAR and the Pipeline Geohazards Toolbox: Instructions for Use as of 2018
4	Operations, Monitoring, and Maintenance	Geohazard Identification and Characterization	IPC2018-78695	Satellite Data Analytics for Natural Disaster Assessment & Application to Pipeline Safety
4	Operations, Monitoring, and Maintenance	Geohazard Mitigation	IPC2018-78225	Pipeline Geohazard Assessment ? Bridging the Gap between Integrity Management and Construction Safety Contexts
4	Operations, Monitoring, and Maintenance	Geohazard Mitigation	IPC2018-78630	Experimental Evaluation of Blasting Near Pipelines
4	Operations, Monitoring, and Maintenance	Geohazard Mitigation	IPC2018-78651	Preserving Pipeline Integrity with Large Diameter Stone Columns at Deadhorse Creek Crossing, southern Manitoba
4	Operations, Monitoring, and Maintenance	Geohazard Triggers: Seismic and Flooding	IPC2018-78013	Near-Real-Time Seismic Monitoring for Pipelines
4	Operations, Monitoring, and Maintenance	Geohazard Triggers: Seismic and Flooding	IPC2018-78422	Development of a Pipeline Post Seismic Response Screening Process
4	Operations, Monitoring, and Maintenance	Geohazard Triggers: Seismic and Flooding	IPC2018-78740	FLOOD MONITORING: EVALUATING ACTION RESPONSE TIME RELATIVE TO WARNING TIME
4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78094	LEAK LOCALIZATION ALGORITHM APPLIED TO NON-ISOTHERMAL LIQUID FLOW IN HORIZONTAL PIPELINES
4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78169	A Calculation Model For Leak Detection And Location Of Single Pipeline With Two Leaks
4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78244	Acoustic Characteristics of Liquid Hydrocarbon Releases from Buried Pipelines:An Experimental Evaluation
4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78327	Three new leak localization approaches for gas pipelines using acoustic waves

4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78343	A Nonintrusive Pipeline Leak Detection Service Using Pressure Wave Analysis
4	Operations, Monitoring, and Maintenance	Leak Detection I	IPC2018-78426	Pipeline Rupture Detection Using Real-Time Transient Modelling and Convolutional Neural Networks
4	Operations, Monitoring, and Maintenance	Leak Detection II	IPC2018-78548	Strategies for Isothermal, Real-Time, Transient Pipeline Models in Shut-in Conditions
4	Operations, Monitoring, and Maintenance	Leak Detection II	IPC2018-78624	TESTING OF AN OIL-ON-WATER SENSING TECHNOLOGY FOR DETECTING PIPELINE LEAKS IN REMOTE LOCATIONS SUBJECT TO FREEZING CONDITIONS
4	Operations, Monitoring, and Maintenance	Leak Detection II	IPC2018-78640	Application of Machine Learning to Distributed Temperature Sensing (DTS) Systems
4	Operations, Monitoring, and Maintenance	Leak Detection II	IPC2018-78791	Optimization of Averaging Window Length and Alarming Hold Time in Volume Balance RTTM Leak Detection to Minimize False Alarms and Spill Volume
4	Operations, Monitoring, and Maintenance	Maintenance Planning and Reliability	IPC2018-78216	Risk-Based Inspection Optimization for Valve Inspections
4	Operations, Monitoring, and Maintenance	Maintenance Planning and Reliability	IPC2018-78647	THIN-WALL PIPELINE REPAIR: EVALUATION OF REINFORCEMENT SYSTEMS AND INTERNAL TEMPERATURE MONITORING DURING MAINTENANCE PROCEDURES
4	Operations, Monitoring, and Maintenance	Maintenance Planning and Reliability	IPC2018-78660	INSTRUCTIVE VALUE OF FLOW ASSURANCE ASSESSMENT BASED J-CURVE ANALYSIS ON PIPELINE MAINTAINENCE AND OPERATION
4	Operations, Monitoring, and Maintenance	Pipeline Column Separation	IPC2018-78235	Validating a Single-Phase Flow Pipeline Simulation Model Against Real Data From a Vapor Collapse Event
4	Operations, Monitoring, and Maintenance	Pipeline Column Separation	IPC2018-78743	Column Separation In A Shut-in Liquid Hydrocarbon Transmission Pipeline
4	Operations, Monitoring, and Maintenance	Pipeline Facilities	IPC2018-78117	Optimizing Electrical Protection for Medium Voltage Controller Lineup to Improve Liquids Pipelines Operation Reliability and Safety
4	Operations, Monitoring, and Maintenance	Pipeline Facilities	IPC2018-78409	In-Situ Modal Response Characterization of Pipe Structures Through Reynolds Number Variation
4	Operations, Monitoring, and Maintenance	Pipeline Maintenance and Repair	IPC2018-78016	State-of-the-Art Assessment of Today's Composite Repair Technologies
4	Operations, Monitoring, and Maintenance	Pipeline Maintenance and Repair	IPC2018-78360	Effect of Room Temperature Creep on Hydrostatic Leak Test

4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control I	IPC2018-78037	Use of Fiber Optic Technology in Monitoring Steel Sleeves and Composite Wrap Reinforcements
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control I	IPC2018-78171	An Optimization Model for UAV Inspection Path of Oil and Gas Pipeline Network
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control I	IPC2018-78266	Pipeline operations improvement with Ultrasonic Meters Diagnostics
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control I	IPC2018-78499	Real-Time Continuous Pipeline Integrity Monitoring Utilising Telecommunications Optical Fibre Cables
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control II	IPC2018-78534	Motorized Valve Control System Centralization: How Does It Impact On Reliability, Costs And Performance?
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control II	IPC2018-78619	Economic And Operational Evaluation Of The Use Of Drag Reducing Agents In A Pipeline
4	Operations, Monitoring, and Maintenance	Pipeline Monitoring & Control II	IPC2018-78715	Tracking Batches Accurately in a Multi-Product Pipeline with large Elevation Changes and Prominent Slack Flow
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78057	Integrated scheduling for a multi-product pipeline network with delivery due dates
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78093	NUMERICAL SIMULATION OF PIG MOTION IN TWO-PHASE FLOW PIPELINES IN THE PRESENCE OF A LEAK
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78279	A New Hydraulic and Thermal Steady-state Calculation Program for Multiphase Pipe Network
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78326	Predicting monthly energy consumption of crude oil pipelines using process simulation and optimization
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78341	A novel depth-first searching approach for detailed scheduling of operations in multi-product pipelines with multiple pump stations
4	Operations, Monitoring, and Maintenance	Pipeline Simulations & Scheduling	IPC2018-78459	Numerical Simulation of Acoustic Resonance in Closed Side Branch with Different Cross-section Shapes
4	Operations, Monitoring, and Maintenance	Third Party Damage/Prevention	IPC2018-78307	Challenges To Repair A Damaged NGL Pipeline By Third Parties In The Andean Mountains Without Pumping Stopped
4	Operations, Monitoring, and Maintenance	Third Party Damage/Prevention	IPC2018-78633	Practical Improvements to Surface Loading Assessment- Building Efficiency and Accuracy
5	Materials and Joining	Advancements in Fittings	IPC2018-78299	Quality Assurance for Quenched and Tempered Pipeline Fittings - A Regulator's Perspective and Plan of Action
5	Materials and Joining	Advancements in Fittings	IPC2018-78306	Industry Best Practices for Hot Tap Branch Connections
5	Materials and Joining	Advancements in Fittings	IPC2018-78431	Coupling Metallurgy and Manufacturing Parameters of Pipeline Fittings to Avoid Substandard Properties

5	Materials and Joining	Crack Advancement Tests	IPC2018-78100	Control of %age shear area in DWTT at low temperature in niobium microalloyed line pipe steel
5	Materials and Joining	Crack Advancement Tests	IPC2018-78243	Analysis of a Full-Scale Burst Test Data Using Fully-Instrumented Standard Pressed-Notch and Modified Backslot DWTT specimens
5	Materials and Joining	Crack Advancement Tests	IPC2018-78389	Quantification of Splitting in X80 Pipeline Steel
5	Materials and Joining	Crack Propagation - CO2 pipelines	IPC2018-78517	CO2SAFE-ARREST: A FULL-SCALE BURST TEST RESEARCH PROGRAM FOR CARBON DIOXIDE PIPELINES ? PAPER 1 PROJECT OVERVIEW AND OUTCOMES OF TEST 1
5	Materials and Joining	Crack Propagation - CO2 pipelines	IPC2018-78525	IS THE BTCM OUT OF TOUCH WITH DENSE-PHASE CO2? REPORTING ON THE FIRST CO2SAFE-ARREST FULL-SCALE TEST
5	Materials and Joining	Crack Propagation - CO2 pipelines	IPC2018-78631	Simulation of a Full-Scale CO2 Fracture Propagation Test
5	Materials and Joining	Crack Propagation - Full Scale Tests	IPC2018-78043	The EPRG Recommendations for Crack Arrest Toughness for Line Pipe Steel (Third Edition)
5	Materials and Joining	Crack Propagation - Full Scale Tests	IPC2018-78447	VERIFICATION OF APPLICABILITY OF BATTELLE TWO-CURVE METHOD TO ULTRAHIGH-PRESSURE RICH-GAS PIPELINES BASED ON A FULL-SCALE BURST TEST
5	Materials and Joining	Crack Propagation - Full Scale Tests	IPC2018-78510	Experimental measurement of CTOA during ductile crack propagation in pipeline burst tests
5	Materials and Joining	Crack Propagation - Micromechanics Simulations	IPC2018-78109	Fast Ductile Fracture: Dependence of Propagation Resistance on Crack Velocity
5	Materials and Joining	Crack Propagation - Micromechanics Simulations	IPC2018-78366	Comparison of plasticity and damage models to quantify the effects on the dynamic, ductile fracture propagation in pipelines
5	Materials and Joining	Crack Propagation - Micromechanics Simulations	IPC2018-78686	Understanding inverse fracture ? a comparison of results of Drop Weight Tear Tests and Partial Gas Tests
5	Materials and Joining	Crack Propagation - Tests and Simulations	IPC2018-78097	Next Generation Ductile Fracture Arrest Analyses for High Energy Pipelines Based on Detail Coupling of CFD and FEA Techniques
5	Materials and Joining	Crack Propagation - Tests and Simulations	IPC2018-78278	The effect of material strain hardening on the determination of CTOD R _{0.2} curves using SENB specimens
5	Materials and Joining	Crack Propagation - Tests and Simulations	IPC2018-78579	EFFECT OF NOTCH TYPE IN DROP-WEIGHT TEAR TEST SPECIMEN ON CRACK PROPAGATION AND ARREST BEHAVIOR

5	Materials and Joining	In-Service Welding	IPC2018-78250	Justification for Reducing In-service Weld Inspection Delay Times for Liquid Pipelines
5	Materials and Joining	In-Service Welding	IPC2018-78305	An Alternative Approach to Time Delay Prior to Inspection for Hydrogen Cracking
5	Materials and Joining	In-Service Welding	IPC2018-78600	SIMULATING IN-SERVICE WELDING OF HOT-TAP BRANCHES TO QUANTIFY THE EFFECT OF GEOMETRY ON LEVEL OF RESTRAINT
5	Materials and Joining	Material Testing Methods	IPC2018-78311	Standardization of Flattening Procedure for Transverse to Pipe Axis Strap Tensile Samples
5	Materials and Joining	Material Testing Methods	IPC2018-78776	An Integrated Approach for the Verification of Pipeline Material using latest State of the Art Technologies and Engineering Processes
5	Materials and Joining	Material Testing Methods	IPC2018-78806	CTOD-RESISTANCE CURVE TESTING AND EVALUATION FOR CLAMPED SENT SPECIMENS
5	Materials and Joining	Micro Alloyed Line Pipe Steel	IPC2018-78102	Transverse Strain Aging Behaviour of Uncoated Thick Walled X70 UOE Microalloyed Steel Pipes
5	Materials and Joining	Micro Alloyed Line Pipe Steel	IPC2018-78511	Structure formation control of microalloyed pipe steels during TMCP for enhance low temperature toughness
5	Materials and Joining	Micro Alloyed Line Pipe Steel	IPC2018-78815	Effect of Straining and Aging on Material Properties of Linepipe Suitable for Deepwater Applications
5	Materials and Joining	Microstructure-property Relationship	IPC2018-78491	Prediction of mechanical properties of ERW pipes considering manufacturing process through numerical analysis
5	Materials and Joining	Microstructure-property Relationship	IPC2018-78551	Effect of initial bainite microstructure on tensile properties after long-term exposure at elevated temperature
5	Materials and Joining	Microstructure-property Relationship	IPC2018-78574	Advanced constitutive model for the accurate evaluation of the structural performance of welded pipes in offshore applications
5	Materials and Joining	Modern Line Pipe Steel	IPC2018-78113	New Production Process of High Strength Pipeline Steel Coil with Large Thickness and Low Internal Stress
5	Materials and Joining	Modern Line Pipe Steel	IPC2018-78763	Development of Heavy Gauge X70 Helical Line Pipe
5	Materials and Joining	Modern Line Pipe Steel	IPC2018-78809	ATTRIBUTES OF MODERN LINEPIPER AND THEIR IMPLICATIONS ON GIRTH WELD STRAIN CAPACITY
5	Materials and Joining	Weld Fitness-For-Service I	IPC2018-78317	Mechanical behaviour of intercritically reheated coarse-grained heat affected zone in high strength line pipe steels
5	Materials and Joining	Weld Fitness-For-Service I	IPC2018-78416	Integration of Welding, NDT, Mechanical Testing and Field Control when Using an ECA Flaw Acceptance Criteria in Pipeline Construction
5	Materials and Joining	Weld Fitness-For-Service I	IPC2018-78504	Integrity of longitudinal welds in pipes ? bridging scales

5	Materials and Joining	Weld Fitness-For-Service II	IPC2018-78283	Toughness of ERW Pipe Seam Welds of Contemporary Steels
5	Materials and Joining	Weld Fitness-For-Service II	IPC2018-78498	Crack formation in Charpy tests of the heat-affected zone of large-diameter linepipe material
5	Materials and Joining	Weld Fitness-For-Service II	IPC2018-78518	RECOMMENDATIONS FOR SUBMERGED ARC SPIRAL PIPE WELDING WITH OPTIMIZED CTOD PROPERTIES
6	Strain Based Design	Strain Capacity and Burst Pressure - I	IPC2018-78103	A Strain Based Criterion to Evaluate the Tensile Capacity of Transmission Pipelines under Large Scale Cyclic Bending
6	Strain Based Design	Strain Capacity and Burst Pressure - I	IPC2018-78778	Girth weld strength matching effect on tensile strain capacity of X70 36-inch OD steel pipe
6	Strain Based Design	Strain Capacity and Burst Pressure - I	IPC2018-78797	Assessment of Dents under High Longitudinal Strain
6	Strain Based Design	Strain Capacity and Burst Pressure - II	IPC2018-78397	Influence of Material Heterogeneity on the Strain Capacity of Pipelines
6	Strain Based Design	Strain Capacity and Burst Pressure - II	IPC2018-78802	Tensile and Compressive Strain Capacity in the Presence of Corrosion Anomalies
6	Strain Based Design	Strain Capacity and Burst Pressure - II	IPC2018-78803	Burst Pressure of Pipelines with Corrosion Anomalies under High Longitudinal Strains
6	Strain Based Design	Strain Capacity and Burst Pressure - III	IPC2018-78131	Effect of UOE Forming Process on the Buckling Strains of Steel Pipes
6	Strain Based Design	Strain Capacity and Burst Pressure - III	IPC2018-78804	BURST PRESSURE OF WRINKLES UNDER HIGH LONGITUDINAL STRAIN
6	Strain Based Design	Strain Demand and Assessment - I	IPC2018-78084	Using Controlled Global Buckling to Improve Buried Pipelines Performance under Large Compressive Deformations Caused by Ground Movements
6	Strain Based Design	Strain Demand and Assessment - I	IPC2018-78352	METHODOLOGIES FOR ESTABLISHING THE PROBABILITY OF PIPELINE FAILURE AT SLOPE CROSSINGS
6	Strain Based Design	Strain Demand and Assessment - I	IPC2018-78710	Improving Fitness for Purpose Methodology and Safety Target Definitions on Geo-hazard
6	Strain Based Design	Strain Demand and Assessment - II	IPC2018-78111	Assessment of Stress Based Design Pipelines Experiencing High Axial Strains
6	Strain Based Design	Strain Demand and Assessment - II	IPC2018-78245	The Effect of Ground Displacement and Stress Relief on Pipeline Behaviour; A Case Study
6	Strain Based Design	Strain Demand and Assessment - III	IPC2018-78215	Assessment of soil restraints mobilized on buried pipes subjected to vertical oblique relative ground movements
6	Strain Based Design	Strain Demand and Assessment - III	IPC2018-78434	Landslide Pipe-Soil Interaction: State of the Practice

7	Risk and Reliability	Consequence Assessment	IPC2018-78059	Assessment Of The Threat From Wildfires On Above Ground Natural Gas Facilities
7	Risk and Reliability	Consequence Assessment	IPC2018-78180	Development and Execution of Consequence Assessment for Liquid Pipeline Facilities
7	Risk and Reliability	Consequence Assessment	IPC2018-78272	DEVELOPMENT OF EMPIRICAL METHOD TO CALCULATE NATURAL GAS PIPELINES RUPTURE EXPOSURE RADIUS
7	Risk and Reliability	Consequence Assessment	IPC2018-78530	CO2SAFE-ARREST - A full-scale burst test research project for carbon dioxide pipelines Paper 3: Dispersion modelling
7	Risk and Reliability	Consequence Assessment	IPC2018-78716	PIPELINE DENT FATIGUE CRACK LEAK RATE FOR LIQUIDS PIPELINES AND THE APPLICATION TO RELEASE CONSEQUENCE ASSESSMENT
7	Risk and Reliability	Corrosion and Cracks	IPC2018-78081	Corrosion Growth Modeling based on Mass In-line Inspection Data using Variational Inference
7	Risk and Reliability	Corrosion and Cracks	IPC2018-78237	EFFECT OF MODEL ERROR ON RELIABILITY ANALYSIS OF SURFACE CRACKS
7	Risk and Reliability	Corrosion and Cracks	IPC2018-78388	The application of Bayesian network threat model for corrosion assessment of pipeline in design stage
7	Risk and Reliability	Corrosion and Cracks	IPC2018-78605	Development of Reliability-based Criteria for Corrosion Assessment
7	Risk and Reliability	Corrosion and Cracks	IPC2018-78694	A Robust Risk Assessment Model for Stress Corrosion Cracking
7	Risk and Reliability	Geohazards, Dents and Other I	IPC2018-78156	Semi-Quantitative Reliability-Based Ranking Method for Assessment of Pipeline Dents with Stress Risers
7	Risk and Reliability	Geohazards, Dents and Other I	IPC2018-78157	Estimating Landslide Induced Probability of Failure to Pipelines Using a Structured Reductionist Approach
7	Risk and Reliability	Geohazards, Dents and Other I	IPC2018-78400	Third-Party Damage Model for Gas Distribution Pipelines
7	Risk and Reliability	Geohazards, Dents and Other II	IPC2018-78569	Limit States Design Checks for Geotechnical Loads
7	Risk and Reliability	Geohazards, Dents and Other II	IPC2018-78678	Geohazard Management Approach within Safety Case
7	Risk and Reliability	Geohazards, Dents and Other II	IPC2018-78784	Development of Strain Demand and Capacity Distributions to Use in Limit States Design For Geotechnical Loads
7	Risk and Reliability	Historical Data Analysis	IPC2018-78528	Statistical analyses of incidents on onshore hazardous liquid pipelines based on PHMSA database
7	Risk and Reliability	Historical Data Analysis	IPC2018-78584	A Brazilian Pipeline Incident Database - The Petrobras and Transpetro Initiative

7	Risk and Reliability	Historical Data Analysis	IPC2018-78767	An Update to the Recommended UKOPA External Interference Frequency Prediction Model & Pipeline Damage Distributions
7	Risk and Reliability	Risk and Reliability I	IPC2018-78170	Effective risk management for in-service pipelines: achieving ALARP by pressure management and slab protection
7	Risk and Reliability	Risk and Reliability I	IPC2018-78217	Developing a Full Risk Picture for Gas Pipeline Consequences
7	Risk and Reliability	Risk and Reliability I	IPC2018-78260	Quantitative Risk Assessment Techniques based on Uncertainty Theory for Natural Gas Distribution Station
7	Risk and Reliability	Risk and Reliability I	IPC2018-78302	Use of Risk and Engineering Assessments to Improve Safety in Class Location Changes ? South American Case Study
7	Risk and Reliability	Risk and Reliability I	IPC2018-78402	The use of sensitivity analyses for optimum data gathering in risk assessments
7	Risk and Reliability	Risk and Reliability I	IPC2018-78735	Application of In-Line Inspection and Failure Data to Develop Risk Model Scores for Unpiggable Pipelines
7	Risk and Reliability	Risk and Reliability II	IPC2018-78173	A Methodology to Assess the Gas Supply Capacity and Gas Supply Reliability of a Natural Gas Pipeline Network System
7	Risk and Reliability	Risk and Reliability II	IPC2018-78182	Risk Assessment for Small Diameter Piping for Liquid Pipeline Facilities
7	Risk and Reliability	Risk and Reliability II	IPC2018-78367	A Multi-module Systemic Approach for the Supply Reliability Analysis of Multi-product Pipeline under Pump Units Failure
7	Risk and Reliability	Risk and Reliability II	IPC2018-78378	Updates on Pipeline Integrity Reliability Targets
7	Risk and Reliability	Risk and Reliability II	IPC2018-78657	System Wide Risk Assessment in the 21st Century - TransCanada's Approach
7	Risk and Reliability	Risk and Reliability II	IPC2018-78783	Guidelines for Quantitative Risk Model Development
8	Northern Offshore and Production Pipelines	Northern 1	IPC2018-78269	Optimization of Hydrate Management in Deepwater Gas Well Testing Operations
8	Northern Offshore and Production Pipelines	Northern 1	IPC2018-78342	Harmonic analysis of the pipeline route thermal profile
8	Northern Offshore and Production Pipelines	Northern 1	IPC2018-78451	Comparative Study on Atmospheric Temperature Models for the Buried Hot Oil Pipeline
8	Northern Offshore and Production Pipelines	Northern 1	IPC2018-78812	A Simplified Simulation Model of Buried Hot Oil Pipeline Temperature Field during Shutdown
8	Northern Offshore and Production Pipelines	Offshore 1	IPC2018-78105	Case Studies Highlighting Rapid Subsea Repair Methods of Pressurised Pipelines
8	Northern Offshore and Production Pipelines	Offshore 1	IPC2018-78108	ADVANCED SAWL DEVELOPMENTS AND OPTIMIZATIONS FOR HIGH TOUGHNESS, LOW HARDNESS AND SOUR ENVIRONMENT

8	Northern Offshore and Production Pipelines	Offshore 1	IPC2018-78238	Program to Evaluate Readiness Levels of Pipeline-oriented Technologies
10	Poster Session	Poster Session 1	IPC2018-78031	WATER PROTECTION - METROPOLITAN REGION OF THE STATE OF SÃO PAULO - BRAZIL
10	Poster Session	Poster Session 1	IPC2018-78044	An Internet of Things (IoT) project based on a text messaging (SMS) gateway applied to a pipeline SCADA system
10	Poster Session	Poster Session 1	IPC2018-78135	FAILURE ASSESSMENT OF THE GAS PIPELINE BY CONSIDERING THE GEOMETRIC CONSTRAINT EFFECT
10	Poster Session	Poster Session 1	IPC2018-78178	Robust Pipeline Coatings Inspired by the Structures of Nacre
10	Poster Session	Poster Session 1	IPC2018-78179	Investigation on Drag Reduction Through Dimple Machining
10	Poster Session	Poster Session 1	IPC2018-78185	Addressing the Challenges of Decommissioning Pipelines
10	Poster Session	Poster Session 1	IPC2018-78320	Compression Capacity And The Seismic Integrity Of Locally Deformed Line Pipes
10	Poster Session	Poster Session 1	IPC2018-78454	Practical Application of Remote Sensing Technology Using a Multi-Tiered Approach to Support Natural Disaster Response and PHMSA Post-Storm Assessment Requirements
10	Poster Session	Poster Session 1	IPC2018-78568	Yield Strength Estimation Using a Nearly-Flat Instrumented Indenter
10	Poster Session	Poster Session 1	IPC2018-78643	Integrating a pipeline odorant system using open source software, including a Kalman Filter solution to virtualize a flow rate indicator
10	Poster Session	Poster Session 1	IPC2018-78687	A numerical corrosion rate prediction method for external corrosion of buried pipeline
10	Poster Session	Poster Session 1	IPC2018-78748	DEVELOPMENT OF LARGE DIAMETER HEAVY WALL SEAMLESS TEE FITTING OF WPHY-X80 GRADE FOR LOW TEMPERATURE PIPELINE STATION APPLICATION
10	Poster Session	Poster Session 1	IPC2018-78753	Pipeline Open Data Standard Next Generation Data Model