

## Bryan Melan, P.E.

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## **Experience**

# Owner, Principal Engineer at Tide Water Integrity Services, LLC Georgetown, TX

August 2014 - Present

Pipeline and Fixed Equipment Structural Integrity Engineering: risk assessment, NDT inspection, data integration, data validation, asset fitness-for-service and design life extension analyses for fixed equipment such as pipelines, process piping, pressure vessels, and tanks. Experienced technical and NDT consultant to investors and venture capitalists. Provides expert witness services in pipeline construction, pressure testing, NDT inspection matters, and regulatory compliance for hazardous liquid and natural gas pipeline systems.

# **Pipeline Integrity SME at Marathon Oil Corporation Houston, TX**

July 2012 - February 2015

Pipeline Integrity Subject Matter Expert for Marathon Oil worldwide hazardous liquid and natural gas assets. Conduct risk-based pipeline assessments for medium and high consequence upstream pipeline operations worldwide, onshore and offshore and deep water. Provide expert consultation to Marathon worldwide operations for applications of innovative NDT inspection, pressure testing, and repair solutions to maintain asset integrity of pipelines, gathering systems, fixed production equipment and tanks.

# Pipelines Technical Authority at Marathon Oil UK Ltd. Aberdeen, UK

March 2007 - July 2012

Secondment to establish pipeline and umbilical control systems operations management and integrity assurance for Marathon's UK North Sea and Marathon Oil Ireland crude oil and natural gas operations. Authored Marathon UK's Pipeline Integrity Assurance Strategy. Participated in the creation, review and publication of British Standards PD8010, Parts 4 and 5 (pipeline integrity management and pipeline maintenance best practices). Reviewing participant in ISO standard ISO/TS 12747:2011, Pipeline Transportation Systems – Recommended Practice for Pipeline Life Extension.

## Pipeline System Integrity Leader at Marathon Petroleum Company Houston, TX

December 1998 - March 2007

Overall pipeline integrity responsibility for Marathon and Marathon-Ashland Pipe Line Co. crude oil, liquid products, and natural gas assets in GOM, LA, TX, WY, Red Butte Pipeline LLC and Centennial Pipeline LLC. Led pipeline integrity assessments (NDT, pressure testing and in-line inspection) for upstream, midstream, downstream, onshore and offshore systems, including salt dome storage cavern operations. Participant in the API review of US Dept. of Transportation NPRM of 49CFR Part 195, section 452 (liquid pipeline integrity management). Co-chairman of ad hoc committee formed by the US Department of Pipeline Safety in 2001 to initiate development of pipeline in-line inspection (ILI) qualification standards resulting in the creation of API 1163, NACE SP0102, and ASNT ILI-PQ-2004 standards.

#### Sr. Pipeline Integrity Engineer at Sunoco Logistics

#### Philadelphia, PA

January 1990 - December 1998

Responsible for pipeline integrity assessments (NDT, pressure testing and in-line inspection), emergency response, and new construction projects for aging pipeline system, 80+ years old. Championed the introduction of innovative inspection NDT technologies for midstream pipeline systems. Created a methodology for pipe long seam crack detection by inference prior to the development of ILI crack tools. Managed pipeline extensions, replacements, reroutes, and repairs for 3000-mile system. Sole project management and engineering responsibilities for all company underwater repairs. Called as expert witness in several civil litigation actions involving pipeline accidents. PE license by examination in 1992.

## Project Manager at Whitesell Construction Co. Delran, NJ

January 1987 - December 1989

Managed the construction and start-up of light industrial plants for third party clients. Responsible for pipeline easement negotiations on behalf of property owners.

#### Offshore Project Engineer at Amoco Production Co. New Orleans, LA

September 1981 - July 1986

Project responsibilities for design, fabrication, installation, and hydrostatic testing of offshore platforms, production process equipment and pipelines in the Gulf of Mexico. Also managed Natural Gas Liquids plant construction and gas processing contracts. Managed Amoco's overall offshore construction budget 1982 – 1986. Authored Amoco's Piping design and NDT specifications for offshore construction.

### Offshore Field Engineer at McDermott International Inc. Cairo, Egypt; Singapore; New Orleans, LA

July 1977 - September 1981

Onsite offshore field construction responsibilities on several pipelay barges and Heavy Lift Vessels in the Gulf of Suez, Java Sea, South China Sea. Structural installations, hyperbaric welding, production process piping and equipment hookup, and pipelay, NDT, and hydrostatic testing of 4" - 48" pipelines. Also spent 2 years as pipe, valves, and fittings, and bespoke equipment process package purchasing agent for major projects worldwide.

## **Certifications**

#### Registered Professional Engineer by examination (current)

Commonwealth of Pennsylvania License PE-043186-E, July 1992

## **Industry Organizations**

#### **American Petroleum Institute**

(API) Chairman Standard 1163

2003 - 2005

Participated in API review of USDOT liquid pipeline integrity management regulations. Crafted recommended language as applied to offshore regulated pipelines which was eventually published into the pipeline safety regulations by USDOT. Past Co-Chairman for publication of API1163 (Inline Inspection Systems Qualification),1st Edition

#### **NACE International**

Chairman TG212, Vice Chair TG039, Past Vice-Chairman of TEG267, Past Chairman STG35 March 1998 to Present

Chairman for publication of NACE standard SP0102 (In-Line Inspection of Pipelines), 3<sup>rd</sup> edition. Vice Chairman for SP0102, 1<sup>st</sup> Edition. Chairman of NACE Pipeline Integrity Symposium 2003 & 2018.

#### **Professional Institute of Pipeline Engineers**

Elected Member

August 2014 to Present

#### **Composite Repairs Users Group**

Member

March 2015 to Present

#### Pipeline Users Group (PLUG) United Kingdom, formerly UKO&G pipeline committee

Operator Representative

September 2007 to February 2015

#### **American Society of Mechanical Engineers (ASME)**

Alternate company representative to ASME B31.4 committee January 2003 to December 2005

#### **International Standards Organization (ISO)**

Reviewing member TC 67/SC 2/WG 17 (Pipeline Lifetime Extension) March 2009 to July 2012

#### **Texas Oil & Gas Association (TXOGA)**

Alternate company member

February 2002 to February 2007

Participated in the review of Texas Railroad Commission development of Texas pipeline integrity management regulations, Chapter 8.

## Clarion Unpiggable Pipeline Solutions Forum

Advisory Board Member and Sessions Chairman October 2010 to Present

#### Fleming Europe

Chairman -7th annual Pipeline Integrity Management Forum, February 6, 2014, Berlin, Germany

Advisor - 8th Annual Pipeline Integrity Management Forum, February 4 - 5, 2015, London, UK

#### Clarion Pipeline Pigging and Integrity Management Conference

Program Advisory Committee and Sessions Chairman June 2017 to Present

#### Elsevier R&D Advisory Panel

Amsterdam, Netherlands October 2019 - Present

### **Patents**

#### PIPELINE INTEGRITY MANAGEMENT PROCESS

United States Patent 7263465 Issued August 28, 2007 Inventors: Bryan Melan, David Siebold, Charley Jones, Thomas Jones, Dennis Johnston, Dennis Hucke, Richard Turley, et al

A method for reducing the consequences and risks of failure in a hydrocarbon pipeline system includes identifying specific segments of pipelines the leakage of which could have an adverse impact on environment or safety, particularly in areas of high consequence, developing a baseline assessment plan for such segments by analyzing information including age, corrosion, and types of seams and joints and then establishing preventive and migitative measures including, where necessary, positioning emergency flow restricting devices in one or more pipeline segments.

#### PIPELINE INTEGRITY MANAGEMENT PROCESS (Worldwide Patent)

United States Patent WO/2005/059294 Issued June 30, 2005 Inventors: Bryan Melan, et al

Also registered in: African Regional Intellectual Property Org. (ARIPO) (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW) Eurasian Patent Organization (EAPO) (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM) European Patent Office (EPO) (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR) African Intellectual Property Organization (OAPI) (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### **Education**

#### **Tulane University**

Master of Engineering (MEng), Petroleum Engineering, 1983

#### **Tulane University**

Bachelor of Science (BS), Civil Engineering, 1977 Activities and Societies: WTUL-FM Radio - Program Director 1974 - 1977