Enbridge Second Supplemental Interim Partial Termination Update Report December 3, 2022, to March 2, 2023

DJ# 90-5-1-1-10099

April 17, 2023

Enbridge Consent Decree (United States v Enbridge Energy, Limited Partnership, et al., Case 1:16-cv-914)

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Glossary

A listing of many of the acronyms and initialisms in this report

AGM	Above Ground Marker
AIWP	Anchor Inspection Work Plan
AIS	Automated Identification System
ALD	Alternative Leak Detection
ALJ	Administrative Law Judge
AMSTEP	Area Maritime Security Training and Exercise Program
APE	Area of Potential Effect
APP	Agricultural Protection Plan
ART	Alarm Response Team
API	American Petroleum Institute
ATC	American Transmission Company
AUV	Autonomous Underwater Vehicle
AVB	Automated Volume Balance
BIWP	Biota Investigation Work Plan
CCO	Control Centre Operations
COTP	Coast Guard of the Port
CD	Consent Decree
CGR	Corrosion Growth Rate
COS	Community Outreach Session
CP	Cathodic Protection
CP CIS	Cathodic Protection Close Interval Survey
CRO	Control Room Operator
DAS	Distributed Acoustic Sensing
DOC	Department of Commerce
DOJ	Department of Justice
DPR	Discharge Pressure Restriction
DQA	Data Quality Assessment
DQR	Data Quality Review
DSAW	Double Submerged Arc Welded
DWSMAs	Minnesota Department of Drinking Water Supply Management Areas
EA	Engineering Assessment
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EIS	Environmental Impact Statement
EMOP	Established Maximum Operating Pressure
EPA	Environmental Protection Agency
ER	Emergency Response
ESA	Endangered Species Act
ESMOC	Enbridge Straits Maritime Operations Center
eAtoN	Electronic Aids to Navigation
FCC	Federal Communications Commission
FEA	Finite Element Analysis
FHLA	Field Level Hazard Assessment
FLIR	Forward-Looking Infrared
FMP	Fen Management Plan
FdL	Fond du Lac Band of Lake Superior Chippewa
FRT	Field Response Team
FR	Future Report
FRE	Features Requiring Excavation
FWT	Fluid Withdrawal Testing
GW	Girth Weld
HCA	High Consequence Area
HDD	Horizontal Directional Drill
HIVES	Hydrologic Imagery Visualization Enterprise System

ICP	Integrated Contingency Plan
ICS	Incident Command System
ILI	In-Line Inspection
ILIMRR	In-Line Inspection Minimum Reporting Requirements
IMT	Incident Management Team
IPTUR	Interim Partial Termination Update Report
IR	Information Request
ISD	In-service Date
ITP	Independent Third Party
IVP	Intelligent Valve Placement
L3R	US Line 3 Replacement
LDA	Leak Detection Analyst
LDAM	Leak Detection Alarm Management
LDPIP	Leak Detection Project Integration Plan
LEPC	Local Emergency Planning Committee
MAOP	Maximum Allowed Operating Pressure
MBS	Material Balance System
MSCA	Mackinac Straits Corridor Authority
MSEL	Master Scenario Events List
MI	Michigan
MDEQ	Michigan Department of Environmental Quality
MN	Minnesota
MDA	Minnesota Department of Agriculture
MDNR	Minnesota Department of Natural Resources
MFL	Magnetic Flux Leakage
MnDOT	Minnesota Department of Transportation
MOP	Maximum Operating Pressure
MP	Milepost
MPCA	Minnesota Pollution Control Agency
MPUC	Minnesota Public Utilities Commission
MRR	Minimum Reporting Requirement
MSP	Most Severe Point
NA	Not Applicable
ND	North Dakota
NDDH	North Dakota Department of Health
NDE	Non-destructive Examination
NDGF	North Dakota Game and Fish
NDPSC	North Dakota Public Service Commission
NDSWC	North Dakota State Water Commission
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historical Properties
NTSB	National Transportation Safety Board
NWT	Nominal Wall Thickness
OD	Outside Diameter
OSRO	Oil Spill Response Organization
OMM	Operations & Maintenance Manual
PCSLD	Pipeline Control Systems and Leak Detection
PHMSA	Pipeline Hazardous Materials Safety Administration
P	Paragraph
PI	Pipeline Integrity
PLM	Pipeline Maintenance
PN	Priority Notification
PO	Purchase Order

PPR	Point Pressure Restriction
PAWSA	Ports and Waterways Safety Assessment
PT	Pressure Transmitter
PR	Pressure Restriction
PAtoN	Private Aids to Navigation
RDS	Rupture Detection System
RFBS	Rupture Flow-based Solution
RNA	Regulated Navigation Area
ROA	Record of Alarms
ROV	Remote Operated Vehicle
RPR	Rupture Pressure Ratio
SAR	Semi-Annual Report
SAW	Submerged Arc Welded
SAWP	Screw Anchor Work Plan
SCADA	Supervisory Control and Data Acquisition
SCC	Stress Crack Corrosion
SHPO	State Historic Preservation Office
SIPTUR1	First Supplemental Interim Partial Termination Update Report
SIPTUR2	Second Supplemental Interim Partial Termination Update Report
SME	Subject Matter Expert
SML	Subject Matter Lead
SOA	Summary of Alarms
SOC	Security Operations Center
SoM	State of Michigan
SRAHC	Saginaw River All Hazards Committee
SRB	Sulfate Reducing Bacteria
STA	Senior Technical Advisor
TPC	Third Party Consultant
TT	Temperature Transmitter
TTX	Table Top Exercises
US	United States
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
USWM	Ultrasonic Wall Measurement
VAIS	Visual Aids to Navigation
VIR	Verification Issue Record
VCI	Vapor Corrosion Inhibitor
VSR	Verification Status Record
VMRS	Vessel Movement Reporting System
WLOA	Weekly List of Alarms
WMA	Wildlife Management Area
WQC	Water Quality Certification
WT	Wall Thickness

Introduction

In accordance with Paragraph 204.c of the Seventh Modification, Enbridge[1] submits this second Supplemental Interim Partial Termination Update Report (referred to herein as "SIPTUR2" or "Report") in support of Enbridge's request for Partial Termination of the Consent Decree. Paragraph 204.c of the Seventh Modification requires that, following a request for Partial Termination, Enbridge "shall submit a Supplemental Partial Termination Report every 90 days following submission of the request for Partial Termination …" Enbridge submitted its request for Partial Termination on October 18, 2022. In accordance with Paragraph 204.c Enbridge submitted a first Supplemental Interim Partial Termination Update Report ("SIPTUR1") on January 17, 2023. This SIPTUR2 documents Enbridge's compliance with the Consent Decree for the 90-day reporting period from December 3, 2022, to March 2, 2023. This SIPTUR2 is being served in accordance with Section XVI of the Consent Decree (Notices), and a copy is being supplied to the Independent Third Party (also referred to herein as the "ITP").

This SIPTUR2 is organized by Paragraph and Subparagraph number of the Consent Decree. The SIPTUR2 supplements the Partial Termination Report ("PTR") that was submitted to the United States and ITP on October 18, 2022, the IPTUR that was submitted on October 27, 2022, and SIPTUR1 submitted January 17, 2023. It does not address Enbridge's compliance with Consent Decree obligations that, in accordance with Paragraph 204.a of the Seventh Modification, are not subject to Partial Termination; Enbridge's compliance with such requirements is documented in SAR11.

In accordance with Paragraph 144, this SIPTUR2 provides information that is required to be submitted to the United States under Paragraphs 29, 31, 49, 96, and Subparagraph 110.c over the 90-day covered period. In accordance with Paragraph 144, this SIPTUR2 also discusses updates since Enbridge's submission of the IPTUR, on a Paragraph-by-Paragraph basis. Enbridge has reported specific activities encountered during this 90-day reporting period in Paragraph 144 of this Report, where there were problems encountered or anticipated in implementing the requirement (together with implemented or proposed solutions).

Enbridge is compliant with the Consent Decree requirements unless otherwise stated in the applicable section of the Report, and includes the information and analysis required by Paragraph 145. Discharge information and post-incident reports required by Paragraphs 146 and 148 also are set forth in this SIPTUR2.

Enbridge has also enclosed appendices to this SIPTUR2, which provide supporting tables, further information on Enbridge's compliance with the Consent Decree, and/or documents that are required to be submitted to the United States under Section IX. The Table of Contents identifies each of these appendices.

VII. Injunctive Measures

Section A – Original US Line 6B

21. [Original US Line 6B]

No change since SIPTUR1.

[1] *As used herein, "Enbridge" refers to the following entities: Enbridge Energy, L.P., Enbridge Pipelines (Lakehead) L.L.C., Enbridge Energy Partners, L.P., Enbridge Energy Management, L.L.C., Enbridge Energy Company, Inc., Enbridge Employee Services, Inc., Enbridge Operational Services, Inc., Enbridge Pipelines Inc., and Enbridge Employee Services Canada Inc.*

Section B – Replacement of Line 3; Evaluation of Replacement of Line 10

22.a, c-d [Replacement of Line 3 in the United States]

No change since SIPTUR1.

22.e [Prohibition Regarding the Use of Original US Line 3 Following Replacement]

No change since SIPTUR1.

23 [Line 10 Replacement Evaluation]

No change since SIPTUR1.

Section C – Hydrostatic Pressure Testing

No change since SIPTUR1.

Section D – In-Line Inspection Based Spill Prevention Program

(I) In-Line Inspections

27 [Timely Identification and Evaluation of All Features]

Enbridge's implementation of the requirements of Subsection VII.D.(I) (Paragraphs 27 to 31) for the timely identification and evaluation of features of significance is set forth in the paragraphs that follow. Enbridge continues to implement the requirements for geometry, corrosion and axial cracking features. Circumferential cracking issues are not included in the SIPTUR2 as they are not subject to partial termination.

28.a-b [Periodic In-Line Inspections and ILI Schedule]

A complete list of in-line inspection (ILI) programs conducted by Enbridge to identify features of interest for the pipelines in the Lakehead System, during the reporting period for this SIPTUR2 is provided in **Table D-1**.

Enbridge conducts ILIs on Lakehead System Pipelines using tools identified on the Enbridge Approved ILI Tool List which was submitted to the ITP. All ILIs that Enbridge believes are currently required under Paragraphs 65 and 66 of the Consent Decree for all Lakehead System Pipelines have been completed for this reporting period. Those ILIs required to detect crack features on Line 2 were addressed in the "Stipulation and Agreement Regarding Assessment and Payment of Stipulated Penalties Relating to Timeliness of Certain In-Line Inspection" which was filed with the Court on May 2, 2018 (referred to herein as the "ILI Stipulation"). This was reported in previous SARs.

28.c [Incomplete or Invalid ILI]

Enbridge's contracts with vendors that are retained to conduct ILIs on the Lakehead System reference the In-Line Inspection Minimum Reporting Requirements, ("ILIMRR" version 8.3, version date March 1, 2020).

This was updated from the previous version which was issued to all approved ILI vendors prior to the Consent Decree Effective Date. The requirements that vendors must submit Data Quality Assessments ("DQA") according to the deadlines specified in the Consent Decree are specified in the ILIMRR. The ILIMRR is incorporated into the ILI vendors' overall contracts with Enbridge. In addition to the ILIMRR, ILI vendor contracts stipulate that all work under the contract is completed in accordance with the terms and conditions of the Consent Decree, and each ILI is contracted through Enbridge's contract Work Order Process.

In addition, Enbridge Lakehead System work order contracts, including those concerning ILIs, contained and continue to contain the following stipulating language:

"The following are specifically made part of this Work Order Contract and all work shall be performed in accordance with the following: Company's Consent Decree in United States of America v. Enbridge Energy, Limited Partnership, et al., Case No. 1:16-CV-914, available at:

https://www.epa.gov/sites/production/files/2017-06/documents/enbridgeentered-cd_0.pdf.

Incomplete or invalid runs are reported in **Table D-2**. There was one incomplete or invalid ILI inspection during this reporting period as summarized below:

- Line 4, WR-PW, Geometry TRID 112460 – Invalid inspection subsequently completed on February 2, 2023, which is within the required CD reinspection interval

29 [12-Month ILI Schedule]

Table D-4 outlines changes to the 12-month Lakehead ILI schedule provided in SAR10, which covers the reporting period up to May 22, 2023.

30 [ILI Schedule Modification]

ILIs have been performed by Enbridge, as shown **Table D-1**.

Table D-4 outlines changes to the 12-month Lakehead ILI schedule provided in SAR10, which covers the reporting period up to May 22, 2023. All schedule changes associated with the ILIs are planned to be completed as per the re-inspection interval requirements in Paragraphs 65, 66 and 70 of the Consent Decree and the ILI Stipulation agreed to by EPA and Enbridge and filed with the Court on May 2, 2018. The modified schedule was communicated to the ITP and EPA during monthly technical meetings, or through email.

31 [ILI Compliance with Tool Specifications]

Enbridge reviewed the vendor-provided Data Quality Assessment ("DQA") reports for each ILI performed and compared the reports against vendor tool specifications and other relevant information.

The ILIs that operated outside of the tool specifications are summarized below. The tool performance summaries are provided in **Table D-6** with details available in the Initial ILI Reports and ILI Summary Documents.

Incomplete or Invalid ILIs and Rerun Dates

Line 4 WR-PW XGP/Geopig Geometry (Tool Run ID 11246/12837)

During the initial inspection, the tool experienced excessive tool rotation. This resulted in degraded dent sizing. A re-run was successfully completed on February 2, 2023, providing a complete geometry ILI data set for feature analysis and assessment before the inspection deadline of February 6, 2023.

ILIs with Minor Tool Performance Deficiencies (did not meet vendor specification)

Per **Table D-6** there were 2 ILIs with Minor Tool Performance Deficiencies in this reporting period.

Line 2 GF-CR MFL4 Corrosion (Tool Run ID 10858)

During the inspection main corrosion sensors 88-90 became faulty from absolute distance 24,223 m to the end of the line resulting in a 0.92% area with reduced specification. For the affected area, the depth sizing specification was reduced to +3%/-19% and detection specification reduced to 7% for general metal loss and circumferential grooving and 10% for pitting and axial grooving.

Line 4 CR-CS DuDi UCM Crack (Tool Run ID 10888)

During the inspection 11 sensors experienced reduced signal quality from 0.92 km to 16.45 km due to a skid tilt. This resulted in the stated performance specifications being achieved for 99.42% of the 36" portion of pipe, and 100% stated performance specifications for the 48" portion. Of the 0.58% area of the 36" portion of pipe, an updated specification could not be specified by the ILI vendor due to the varying impact across the affected area.

(II) Review of ILI Data

32.a-c [Initial ILI Reports for Crack, Corrosion and Geometric Features Received]

Table D-7 lists valid ILI tool runs for which the Initial ILI Reports were received during this Reporting Period. All Initial ILI Reports were received in accordance with the timelines outlined in Paragraph 32.a through c.

33 [Priority Features]

33.a [Immediate Priority Feature Notification Requirements]

Enbridge contracts require that vendors notify Enbridge of Priority Features as specified in Subparagraphs 33.a and 33.b[2].

The immediate priority feature notification requirements are documented in the ILI MRR, which forms part of all Enbridge contracts with vendors, as described above in Subparagraph 28.c.

33.b [Priority Feature Definition]

Reporting criteria for what are deemed as Priority Features are outlined in the ILIMRR which is a contractual obligation for all ILI vendors (**Table D-8**). The ILI Reporting Profile Standard has been provided to the ITP

[2] *Enbridge has not applied Consent Decree Priority Notification requirements to circumferential cracking features and has not applied Appendix B to evaluate circumferential crack features as it is not suitable for such features.*

for compliance verification activities and specifies the following priority notification reporting criteria, which are consistent with Appendix A of the Consent Decree and Exhibit 1 – Fifth Modification of the Consent Decree:

1. Features that the ILI Vendor may consider to be an immediate threat to the integrity of the pipeline.
2. Ovalities greater or equal than 10 percent of the outside diameter ("OD") of the pipe.
3. Dent or geometric features (other than ovalities) greater than or equal to 5 percent of the outside diameter ("OD") of the pipe.
4. Metal loss features with peak depth greater than or equal to 75 percent of the nominal wall thickness of the pipe.
5. Metal loss features forecasted to reach a maximum depth of greater than or equal to 75 percent of nominal wall thickness with 365 calendar days.
6. Metal loss features with an effective area RPR less than or equal to 0.85.
7. Unmatched metal loss features with a depth greater than or equal to 50 percent of the nominal wall thickness or actual wall thickness.
8. Crack features that meet or exceed the saturation limit of the crack detection tool.
9. Crack features greater than or equal to 2.5 mm/0.098 inch detected on the internal and external pipe surface at the same location.
10. Priority notification criteria specifically identified in a project work order. For example, the ILIMRR specifies Priority Notification Criteria for Ovalities, Wrinkles or Ovalities associated with Dents with a minimum ID less than or equal to the values shown in ILIMRR Table 5. The appropriate application of Appendix A with regards to ovality features has been incorporated into the Fifth Modification of the Consent Decree. For the purposes of this reporting period, Enbridge has applied the Priority Notification Criteria for ovalities as per the Fifth Modification requirements. Refer to **Table D-8** for Enbridge's Priority Notification Criteria for Ovalities and other Deformation Features.

Upon receiving notice of any Priority Feature, Enbridge determines whether the feature was correctly identified and whether the feature was previously repaired or mitigated. After making such a determination, Enbridge then determines whether any Priority Feature is a Feature Requiring Excavation ("FRE") in accordance with Section VII.D(III) of the Consent Decree. There were no Priority Features that Enbridge determined to be FREs during this reporting period.

33.c-d [Priority Feature Review and Mitigation if Required]

There were no Priority Features that Enbridge determined to be FREs during this reporting period.

34, 34.a[Data Quality Review - Preliminary Review of Initial ILI Report]

Initial ILI reports that were received and reviewed during this Reporting Period are reported in **Table D-10**. This table provides a comparison of the Data Quality Review ("DQR") timeline and the requirements in Subparagraph 34.a of the Consent Decree.

34.b [Evaluation of Features Requiring Excavation]

For ILI runs for which no data quality concerns were identified, Enbridge proceeded to evaluate the pipeline segments and/or features against the requirements in Subsection VII.D.(III) of the Consent Decree.

Paragraph 37 of this SIPTUR2 identifies the timelines when FREs were identified and placed onto the Dig List during this SIPTUR2 reporting period.

34.c [Resolution of Identified Data Quality Issues]

Enbridge identified quality concerns during its preliminary review of some Initial ILI Reports (**Table D-11**). Enbridge completed evaluations required to resolve all identified data quality concerns. Details regarding data quality issues are reported below.

Line 2 GF-CR MFL4 Corrosion (Tool Run ID 10858)

During the inspection two tool stops were observed at absolute distance 10,9948m and 180,523.9m. After correlation with the previous inspection, the ILI vendor confirmed that there was no data loss on these locations.

As mentioned in paragraph 31, the ILI vendor provided updated reduced specifications for 0.92% of the pipe area which was accepted, and the ILI data considered to be of sufficient quality to complete the required analysis.

Line 2 GF-CR MFL4 Geometry (Tool Run ID 10858)

During the inspection two tool stops were observed at absolute distance 10,9948m and 180,523.9m. After correlation with the previous inspection, the ILI vendor confirmed that there was no data loss on these locations.

Line 4 CR-CS DuDi UCM Crack (Tool Run ID 10888)

During the inspection one crack sensor began to malfunction intermittently from 38.71 km to the end of the line but was confirmed by the ILI vendor to have no impact to data quality nor performance specification.

As mentioned in paragraph 31, 0.58% of the 36” portion of pipe had a reduced specification of unknown quantity. The ILI vendor completed a manual review of features within the affected degraded data areas. All affected features are below reporting threshold and as a result the ILI data was considered to be of sufficient quality to complete the required analysis.

Line 5 BC-RW UCx Crack (Tool Run ID 10905)

During the inspection one crack sensor did not function for the entire length of the run but did not have any negative effect to the data quality or performance specification. The performance specification was achieved over the entire pipe area and as a result the ILI data was considered to be of sufficient quality to complete the required analysis.

34.d [ILI Data Quality Evaluation Timelines]

As outlined in the CD, all ILI data quality evaluations must be completed within 180 Days after the ILI tool is removed from the pipeline at the conclusion of any ILI investigation. As outlined in **Table D-12**, Enbridge completed all data reviews required in SIPTUR2 within 180 days.

34.e [Discrepancies between Two Successive ILI Runs]

Inspections with significant discrepancies in either feature population, severity, or type related to the previous assessment of the line segment were identified during Enbridge’s preliminary review of the initial ILI Reports and are reported in **Table D-13**. Enbridge conducted investigations to evaluate the accuracy

and reliability of the data discrepancies for use in integrity assessments. Details of these discrepancies are reported below.

Line 2 GF-CR MFL4 Corrosion (Tool Run ID 10858)

There was a decrease in feature population when compared to the 2017 Gemini inspection. The decrease in feature population can be attributed to the different tool resolutions and recent improvements in ILI vendor analysis and reporting, resulting in features reclassified as manufacturing anomalies.

Line 2 GF-CR MFL4 Geometry (Tool Run ID 10858)

There was a decrease in feature population when compared to the 2017 Gemini inspection. The decrease in feature population can be attributed to the change in tool, from the Gemini to the MFL4.

Line 5 BC-RW UCx Crack (Tool Run ID 10905)

There was an increase in feature population when compared to the 2017 CD+ inspection. The increase in feature population can be attributed to the change in tool and the different tool tolerances and unit binning.

34.f-g [Investigative Digs]

There were no Investigative Dig Programs issued during this reporting period.

(III) Identification of Features Requiring Excavation

35 [Evaluation of Each Feature in Initial ILI Report for Feature Requiring Excavation]

Following each ILI tool run, Enbridge evaluated each feature identified in the Initial ILI Report to determine if the feature was an FRE.

36 [Feature Requiring Excavation Definition]

With respect to crack and corrosion features, Enbridge applies three methods to identify an FRE:

1. Enbridge estimates the lowest pressure at which the feature is predicted to rupture or leak (i.e., Predicted Burst Pressure) using the procedures set forth in Subsection VII.D.(IV) of the Consent Decree.
2. Enbridge estimates the amount of time remaining until the feature is predicted to rupture or leak (i.e., Remaining Life) using the procedures set forth in Subsection VII.D.(VI) of the Consent Decree.
3. Enbridge considers other unique characteristics of a feature using the criteria set forth in Subsection VII.D.(V) of the Consent Decree. The records of these methods being applied are in the Assessment Sheets for each ILI tool run as well as Program Summary Documents and other detailed documentation which the ITP has access to.

With respect to Geometric and Intersecting or Interacting features, Enbridge applied the Fifth Modification analysis process to identify FREs and to set pressure restrictions for these features. Refer to Section IX Implementation of Fifth Modification of the Consent Decree for Geometric and Intersecting or Interacting Features for more details.

37 [Deadlines for Adding Features Requiring Excavation on the Dig List]

Following each successful Consent Decree ILI tool run, Enbridge identified all crack, corrosion, and geometric features detected by the ILI tool runs that are FREs. Enbridge added such features to an electronic list of features scheduled for excavation and repair or mitigation (i.e., Dig List) in accordance with the schedule outlined in Paragraph 37 of the Consent Decree.

All FREs identified based on their Predicted Burst Pressure or their Remaining Life were added to the Dig List within 5 days of calculating the Predicted Burst Pressure and the Remaining Life of the features in accordance with Subsection VII.D.(IV) of the Consent Decree.

All FREs identified based on interacting or intersecting criteria were added to the Dig List within 5 days of completing the preliminary review of the initial ILI reports, in all cases where the preliminary review did not identify any data quality concerns related to the feature.

Table D-14 provides a list of the FREs that were identified during the reporting period of this SIPTUR2. ILI tool runs that did not identify any FREs are excluded from this table.

37.a-e. [Sixth Modification – Re-evaluation of Certain Features Based on Updated Wall Thickness]

Paragraph 37.a-e Sixth Modification – Re-evaluation of Certain Features Based on Updated Wall Thickness is complete as reported in SAR10.

38 [Establishing Excavation and Repair Deadlines for FRE's]

Enbridge has complied with the requirements of Paragraph 38, as set forth in the Subparagraphs below.

38.a [Excavation and Repair Deadlines]

For each FRE placed on the Dig List, Enbridge established excavation and repair deadlines that accounted for the level of threat posed by the feature and that complied with the dig criteria deadlines specified in Subsection VII.D.(V) of the Consent Decree. If a feature met more than one dig-selection criteria, Enbridge set the excavation and repair deadline in accordance with the shortest applicable timetable set forth in Subsection VII.D.(V) of the Consent Decree.

38.b [Establish Pressure Restrictions if Required]

All pressure restrictions (PRs) required for FREs are established pursuant to Subsection VII.D.(V) of the Consent Decree.

In cases where an FRE is subject to more than one PR under Subsection VII.D.(V) of the Consent Decree; Enbridge established the PR that results in the lowest operating pressure at the location of the feature.

The "Point Pressure Restriction (PPR) values" requirements were satisfied by implementing operating limits that use a combination of discharge and suction limits to manage pressures. These operating limits maintain pressures to a level that assured compliance with the PPR value at the location of the feature.

During the SAR6 reporting period, and at the request of the ITP, Enbridge started providing a monthly summary of implemented Consent Decree PPRs and the maximum pressure achieved during each month at PPR locations. During the SAR8 reporting period, Enbridge provided the ITP with access to a PowerBI report that allows the ITP to generate their own PPR reports. Consequently, Enbridge ceased providing a monthly PPR report as it was no longer required. Consent Decree PPRs include all PPRs based on Consent Decree requirements and does not include other PPRs set by Enbridge or other regulatory bodies.

This update is provided at the Pipeline Control Systems and Leak Detection/Control Centre Operations ("PCSLD/CCO") monthly technical meetings.

39.a-b [Field Measurements of Excavated Features]

During the reporting period of this SIPTUR2, Enbridge followed its processes to excavate and repair or mitigate and record field measurements for all crack and geometry features, and all corrosion features with depths greater than 10% wall thickness in accordance with Subsection VII.D.(V) of the Consent Decree. Ten percent (10%) is the general corrosion ILI tool detection depth threshold.

During excavations for FREs and any additional segments of pipeline, including investigative digs pursuant to Subparagraph 34.e of the Consent Decree, Enbridge obtained and recorded field measurements of all applicable features on the excavated segments and these were stored in OneSource as per Paragraph 77. All approved Non-destructive examination ("NDE") reports were uploaded to the Enbridge Shared Drive for ITP access.

During the reporting period of this SIPTUR2, Enbridge did not discover any pipe segments that contained a high volume of unreported features as denoted in the Consent Decree. Hence, the requirements of Subparagraph 39.a are not applicable for this SIPTUR2.

During this SIPTUR2 reporting period, the FREs repaired and planned for repair are listed in **Table D-15**.

40 [Field Data Comparison to ILI Data]

There were no ILI programs with the associated Consent Decree digs completed within the reporting period for this SIPTUR2.

Within 30 Days after completing excavation of all Features Requiring Excavation identified on a pipeline based on any Initial ILI Report, Enbridge completed an analysis of field data obtained during all excavations conducted and determined whether field data indicated that the ILI tool tended to understate the actual severity of features on the excavated sections of the pipeline ("ILI tool depth bias").

Enbridge, the EPA and the ITP have discussed refinements to when excavations of FREs would be deemed "completed." Enbridge and the ITP have provided an interpretation document to provide clarity around this issue and are awaiting further comments or concurrence from the EPA on this issue.

41 [ILI Electronic Records]

For each ILI investigation conducted during this reporting period, Enbridge maintained electronic records relating to ILI data, including but not limited to all 14 categories of information listed in Paragraph 41 of the Consent Decree. Enbridge procedures require that such ILI data records be maintained for at least 5 years after termination of the Consent Decree.

(IV) Predicted Burst Pressure/Fitness for Service

42 [Predicted Burst Pressure]

Enbridge calculated the Predicted Burst Pressure of all crack[3] and corrosion features identified by ILI tools, in accordance with the requirements of Subsection VII.D.(IV) of the Consent Decree.

[3] *Enbridge has not applied Appendix B to evaluate circumferential crack features as it is not suitable for such features.*

43 [Predicted Burst Pressure Definition]

Enbridge calculated the Predicted Burst Pressure of ILI features in accordance with the inputs and procedures in Appendix B of the Consent Decree[3]. Enbridge calculated the Predicted Burst Pressure of NDE features, as described in SAR5 Paragraph 144 [Section D] crack and corrosion Field Burst Pressure Calculations per Appendix B in the Consent Decree – Paragraph 43.

The ILI Assessment Sheets document all ILI feature Burst Pressure calculations, including the methodology and all the inputs as stated above.

44.a-b [Initial Predicted Burst Pressure Calculations and Initial Remaining Life Calculations]

Table D-17 summarizes the timelines for completing initial Predicted Burst Pressure calculations and initial Remaining Life calculations for all crack[4] or corrosion features identified in reports that were received within the reporting period. Refer to **Table D-7** under Paragraph 32.a-c for a list of all valid ILI runs with reports received within the reporting period.

As shown in **Table D-17**, all calculations for features were completed no later than the earlier of either: (1) eight weeks after completing data quality review with respect to the feature and/or pipeline section where the feature is located; or (2) 175 Days after the ILI tool was removed from the pipeline at the conclusion of the ILI run.

45 [Retention of Electronic Records]

Enbridge maintains electronic records documenting all Predicted Burst Pressure calculations, and all Remaining Life calculations, including inputs and dates the calculations were completed with respect to features, and will continue to do so until five years after termination of the Consent Decree.

(V) Dig Selection Criteria

46.a-d [Dig Selection Criteria]

Where Enbridge has identified features meeting dig selection criteria, it has within set timeframes, excavated, and repaired or mitigated such features in accordance with Tables 1 through 5 of the Consent Decree. A summary of each dig and the related timeframes are provided in **Table D-18**.

A total of three cancelled digs during this reporting period are listed in **Table D-19** and previously communicated to the ITP. The justification for cancelling the digs are provided in the table.

During each excavation required under this Paragraph, Enbridge inspected all excavated portions of the pipeline and collected field measurements of features on excavated portions of the pipeline. Enbridge determined, based on an analysis of field measurement values of feature length and depth and other relevant field observations, whether excavated portions of the pipeline contained any additional features not previously identified on the Dig List that satisfy one or more of the dig selection criteria.

At the time of excavation, Enbridge repaired or mitigated the features based on an analysis of field measurement values for feature length and depth or other field observations, regardless of whether the feature was placed on the Dig List based on an analysis of ILI-reported values for feature length and depth.

Where applicable, Enbridge established pressure restriction requirements and imposed PPRs in accordance with Consent Decree requirements as summarized in **Table D-20**. Note that when the imposition deadline of a PPR was a weekend or United States Federal holiday, the deadline was moved to the following business day in accordance with the definition of Day in Paragraph 10(m) of the Consent Decree.

46.e [Alternate Plans and Alternate Interim Pressure Restrictions]

No Alternate Plans ("AP") were submitted during the reporting period. The total number of Alternate Plans and Alternate Interim Pressure Restrictions submitted since the Effective Date of the Consent Decree to the end of this SIPTUR2 reporting period are provided in **Table D-21.**

46.f [Saturated Signal Crack Feature]

Enbridge did not submit any AP during the reporting period relating to an alternate timetable for excavation and repair.

46.g [Alternate Plans and Alternate Interim Pressure Restrictions]

Enbridge did not submit any AP during the reporting period relating to an alternate interim pressure restriction.

46.h [Alternate Plans and Temporary Pressure Restrictions]

No alternate Interim Pressure Restrictions during the reporting period.

46.i. [Compliance with applicable laws and regulations]

No APs were submitted during the reporting period.

46.j [Alternate Plans and Alternate Pressure Restrictions Implementation]

No APs were submitted during the reporting period.

46.k [Documentation Maintenance]

Enbridge has maintained all documentation relating to the selection and implementation of the Alternate Plans. Enbridge is prepared to make such documents available to EPA upon request, consistent with the requirements of Section X (Information Collection and Retention). Information is being retained in an internal repository in conformance with this requirement.

46.l [Updates of Alternate Plans and Alternate Pressure Restrictions]

On January 24, 2023, Enbridge provided an update on AP14 and AP16. The report identified that the AP features were excavated and repaired on January 14, 2023, and January 13, 2023, respectively and that Enbridge considered the APs as closed.

47 [Dig-Selection Criteria and Pressure Restriction Requirements for Crack Features]

Enbridge has set schedules for the excavation and repair or mitigation of each crack feature that meets one (or more) of the Dig Selection Criteria set forth in Table 1 of the Consent Decree, in accordance with the timeframes specified in column 2 of Table 1, and the PR requirements specified in column 3 of Table 1 of the Consent Decree. The crack features that meet the above criteria are summarized in **Table D-24** and PPRs of crack FREs are listed in **Table D-25**.

Enbridge also issued dig packages to excavate and repair or mitigate crack features that intersected or interacted with corrosion features, dents, or other geometric features, and established appropriate pressure restrictions for such interacting features, as per Table 5 and Paragraph 59 of the Consent Decree, and

associated Modifications to the Consent Decree[4]. For more information about these interacting features, see Paragraph 59 in this SIPTUR2.

48 [Crack Feature Mitigation Timelines]

During this reporting period, Enbridge determined the deadline for each feature repair / mitigation as the shortest deadline specified in Tables 1, 3, or 5 of the Consent Decree, and Enbridge established the lowest operating pressure at the location of the feature which is subject to more than one pressure restriction.

49 [Dig Timeline Extensions]

During this reporting period, Enbridge extended the dig deadline for one FRE beyond 180 days due to seasonal considerations or unusual circumstances as per CD Paragraph 49.a. The dig deadline extension details are provided below.

Line 5 MA-BC GW 175960

The Dig deadline extension is from the Line 5 MA-BC UCx 2022 inspection. An FRE identified on GW175960 was added to the dig list on 11/21/2022 as Dig ID 32167 with an original excavation due date of 5/19/2023 (180 Days). A pressure restriction of 696 psi was required for this FRE based on CD criteria.

While planning to remediate this feature, Enbridge determined that due to the location, it would be environmentally beneficial to extend the dig deadline up to 365 days per Paragraph 49 to avoid winter execution. It will allow Enbridge to adjust work and schedule plans so that impacts to the Eastern Massasauga Rattlesnake (EMR) can be avoided to the extent possible and will allow Enbridge to conduct work at a time that we will have the least impact to the EMR during hibernation and its Tier 1 habitat. Enbridge has determined that the risk that the identified feature will result in a leak or rupture is low. The Dig deadline was extended from 5/19/2023 to 11/21/2023 on 2/21/2023, and a recalculated pressure restriction of 598 psi was implemented.

50 [Corrosion Features]

Enbridge has set schedules for the excavation and repair or mitigation of each corrosion feature that meets one (or more) of the Dig Selection Criteria set forth in Table 2 of the Consent Decree, in accordance with the timeframes specified in column 2 of Table 2 for corrosion features located in any HCA, and the timeframes specified in column 3 of Table 2 for corrosion features not located within an HCA. The corrosion features that meet the above criteria are summarized in **Table D-26** and the associated PPRs are listed in **Table D-27**.

Enbridge also issued dig packages to excavate and repair or mitigate corrosion features that intersect or interact with crack features, dents, or other geometric features, and established appropriate pressure restrictions for such interacting features, as provided in Table 5 and Paragraph 59 of the Fifth Modification of the Consent Decree.[5] For more information about these interacting features, see Paragraph 59 in this SIPTUR2. These features are not included in **Table D-26.**

[4] *Enbridge does not interpret the CD to cover interacting or intersecting circumferential crack features.*
[5] *Enbridge does not interpret the Consent Decree to cover interacting or intersecting circumferential crack features.*

51 [Corrosion Feature Mitigation Timelines]

During this reporting period, Enbridge determined the deadline for each feature repair / mitigation as the shortest deadline specified in Tables 2, 3, or 5 of the Consent Decree, and Enbridge established the lowest operating pressure at the location of the feature which is subject to more than one pressure restriction.

52 [Corrosion Feature Pressure Restrictions]

Enbridge established PRs within the timeframes identified in Paragraph 51 Table 2 of the Consent Decree and specified in Subparagraphs 52.a and 52.b (i.e., within 2 days after determining that any corrosion feature had a depth greater than 80 percent of the wall thickness of the joint where the feature is located, or within 2 days after determining that any feature had a RPR less than 1.00 or a Predicted Burst Pressure that is less than 1.39 x MOP).

Table D-27 lists the PRs imposed due to these criteria in this reporting period of the SIPTUR2. Note that where the imposition deadline for PPRs was on a weekend or United States Federal holiday, the imposition deadlines were moved to the following business day in accordance with the Definition of Day in Paragraph 10.m of the Consent Decree.

53 [Dig Selection Criteria for Axial Slotting, Axial Grooving, Selective Seam Corrosion and Seam Weld Anomaly A/B Features]

During this reporting period, there were no Axial Slotting, Axial Grooving and Selective Seam Corrosion, or Weld Anomaly A/B FREs identified.

54 [Pressure Restrictions for Axial Slotting, Axial Grooving, Selective Seam Corrosion and Seam Weld Anomaly A/B Features]

There were no Pressure Restrictions required as a result of Axial Slotting, Axial Grooving, Selective Seam Corrosion features or Seam Weld anomaly A/B features in accordance with Table 3 of the Consent Decree.

55 [Dig Selection Criteria for Dents and other Geometric Features]

Enbridge excavated and repaired or mitigated each dent that met one or more of the Dig Selection Criteria set forth in Table 4 of the Fifth Modification and established pressure restrictions for identified interacting dents as provided in Paragraph 57. Enbridge met the timeframes specified in column 2 of Table 4 of the Consent Decree for features located within an HCA, or timeframes specified in column 3 of Table 4 in the Consent Decree for features not located within an HCA, where applicable.

56 [Dent and other Geometric Feature Mitigation Timelines]

Enbridge determined the deadline of a geometry feature repair or mitigation as the shortest deadline. The same process provides that Enbridge will establish the PR resulting in the lowest operating pressure at the location of the feature that was subject to more than one pressure restriction. There were no features of this type reported during this reporting period.

57 [Dent and other Geometric Feature Pressure Restrictions]

Enbridge established PRs for dents within the timeframes identified in Paragraph 57 of the Consent Decree.

58 [Dig Selection Criteria for Interacting Features]

Within 30 days after receiving any Initial ILI Report, Enbridge reviewed OneSource (i.e. the integrated database specified under Paragraph 74 of this SIPTUR2) for the purpose of determining whether any feature reported by the ILI tool intersected or interacted with a feature of a different feature type that was detected during a previous ILI Tool Run but not repaired or mitigated.[6] Interacting features are reported in **Table D-31.**

Enbridge, the ITP, EPA and DOJ negotiated the Fifth Modification of the Consent Decree to resolve differences in interpretation in regard to this Paragraph. Consistent with the Fifth Modification, Enbridge has requested that ILI vendors report all deformations down to the tool tolerance of the geometric ILI tool.

59 [Pressure Restrictions for Interacting Features]

Except when described in the discussion of Paragraph 46 above, Enbridge established the PRs within the timeframes identified in Table 5 and specified in Subparagraphs 59.a and 59.b of the Fifth Modification of the Consent Decree for each interacting feature identified during the period of this SIPTUR2. Within two days after determining that any intersecting or interacting crack, and/or corrosion feature had a Predicted Burst Pressure that is less than 1.25x Established MOP, Enbridge limits operating pressure at the location of the feature to not more than 80 percent of the Predicted Burst Pressure. PPRs for interacting features are reported in **Table D-32** .

(VI) Remaining Life Determinations/Re-inspection Intervals

60 [Remaining Life]

Enbridge completed the Remaining Life calculation for all detected crack and corrosion features that did not meet any of the dig selection criteria. These calculations are in the ILI Assessment Sheets. As reported in Paragraph 44.a-b of this SIPTUR2, all Remaining Life calculations were completed no later than the earlier of either: (1) eight weeks after completing data quality review with respect to the feature and/or pipeline section where the feature is located; or (2) 175 Days after the ILI tool was removed from the pipeline at the conclusion of the ILI run. **Table D-33** summarizes the remaining life calculations completed during this reporting period.

61 [Remaining Life Calculations]

Paragraph 61 provides instances where the remaining life does not need to be calculated for a feature. Pursuant to Paragraph 61, Enbridge does not always calculate the remaining life for repaired or mitigated crack features. Enbridge does not utilize the other exception criteria provided in Paragraph 61.

62 [Operating Pressure Used when Determining the Remaining Life of Crack Features]

Enbridge monitors and records the actual operating pressures of pipeline segments for each month to be used in the crack feature Remaining Life Calculation as outlined in the Lakehead System Integrity Remediation process:

a. In determining the number and magnitude of pressure cycles, Enbridge uses the worst cycling quarter between the most recent valid crack ILI tool run and the immediately prior valid crack ILI run. The worst cycling quarter reflects the worst combination of cycling

[6] *Enbridge does not interpret the Consent Decree to cover interacting or intersecting circumferential crack features.*

frequency and cycling magnitude for the applicable line or line segment during the period between the successive ILI runs.

b. Enbridge did not increase the operating pressure limit in any segment of a Lakehead System pipeline after determining the Remaining Life of unrepaired crack features in accordance with this Paragraph 62.

63 [Crack Feature Remaining Life Calculations]

Enbridge used a fatigue crack growth model and a Stress Crack Corrosion ("SCC") crack growth model and determined the remaining life with the model yielding the fastest projected growth rate and the shortest Remaining Life.

The application of fatigue crack growth model and SCC growth model to yield the fastest projected growth rate and the shortest Remaining Life is illustrated in the ILI Assessment sheets which the ITP has access to for verification purposes.

Paragraph 44 of the Consent Decree discusses how all calculations were completed within the required timeframes. **Table D-34** summarizes the remaining life calculations completed during this reporting period.

64 [Corrosion Growth Rate]

Enbridge used a Corrosion Growth Rate ("CGR") based on back-to-back corrosion runs (if available), or a historical CGR estimate for newly constructed pipeline or pipeline segments with no less than 0.005 inch per year. The application of a CGR based on back-to-back corrosion runs, or a historical CGR estimate for newly constructed pipeline or pipeline segments with no less than 0.005 inch per year, is illustrated in more detail in the ILI Assessment sheets which the ITP have access to for verification purposes.

65 [Maximum Interval between Successive ILIs Based on Half-Life Criteria]

Other than crack inspections for Line 2, the maximum interval between successive ILIs to assess crack and corrosion features did not exceed one-half of the shortest Remaining Life of any unrepaired crack or corrosion feature in the pipeline, calculated as described in Subsection VII.D.(VI) as of the end of the reporting period for this SIPTUR2. Crack inspections for Line 2 (as per the Stipulation filed with the Court on May 2, 2018) were completed in 2020 and reported in SAR8.

66 [Maximum Interval between Successive ILIs – Not to Exceed Five Years]

The maximum interval between successive ILIs does not exceed 5 years for all Lakehead pipeline segments[7]. The 12-month ILI schedule for this reporting period was reported in SAR10 subject to the changes identified in **Table D-4**. The ILI runs completed during this reporting period are included in Paragraph 28 **Table D-1**.

Section E – Measures to Prevent Spills in the Straits of Mackinac

Per the Seventh Modification, obligations under Paragraphs 68 and 73 of the Consent Decree are not subject to Partial Termination and are addressed in SAR11 for the current time period.

[7] *This statement does not apply to circumferential crack ILI.*

67 [Applicability]

No change since SIPTUR1.

69.a [Biota Investigation]

No change since SIPTUR1.

69.b [Biota Investigation Work Plan ("BIWP")]

No change since SIPTUR1.

69.c [Biota Work Plan Implementation]

No change since SIPTUR1.

70 [In-Line Inspections of the Dual Pipelines]

No change since SIPTUR1.

71 [Investigation and Repair of Axially-aligned Features]

No change since SIPTUR1.

72 [Pipeline Movement Investigation]

No change since SIPTUR1.

Section F – Data Integration

74 [Feature Integration Database]

Enbridge operates and maintains the feature integration database, referred to as "OneSource," for all pipelines in the Lakehead System since August 14, 2013. OneSource integrates information about corrosion, crack and geometry features from multiple in-line investigations of the pipelines and field measurement devices. OneSource enables pipeline integrity-management personnel to identify and track any changes to any feature detected by an ILI tool on successive investigations (i.e., Tool Runs) of the pipeline. In addition, the Feature Match Macro tool uses data from OneSource and permits pipeline integrity personnel to identify and track changes to features detected by successive tool runs, including enabling personnel to evaluate features detected by different types of ILI tools that may overlap or otherwise interact.

75 [Integrity Management Personnel Access to Feature Integration Database]

Enbridge integrity management personnel, including, but not limited to, personnel responsible for identifying FREs, are able to access and view OneSource from their desktop computers and laptops. Personnel are able to search for and view a schematic image of each joint of each Lakehead System pipeline. The information provided with each schematic image has not changed from the information as presented in SAR1.

A difficulty encountered when implementing this requirement is related to the ITP's access to the OneSource data. Currently, data covering all of the Enbridge-owned pipelines is included in OneSource –

it is not limited only to the Lakehead System Pipelines that are subject to the terms of the Consent Decree. While this allows Enbridge to access and store the OneSource data consistently across its entire pipeline system, Enbridge is unable to provide a gateway to the ITP that is limited to OneSource data for Lakehead System Pipelines covered by the Consent Decree. Enbridge has demonstrated that the data required under Paragraph 75 is readily accessible to personnel responsible for identifying FREs.

76 [Successive ILI Data Sets]

Enbridge's compliance with this Paragraph is fully explained in SAR1 and has not changed since that submission. As explained in SAR1, with respect to each type of ILI Tool, OneSource includes at least two successive ILI data sets for lines that have operated since the effective date of the CD – one data set from the most recently completed ILI Tool Run and another data set from the second most-recently completed ILI Tool Run.

77 [Update of OneSource Database]

As per Paragraph 77.a, Enbridge completed an update of OneSource and compliance with this Paragraph was reported in SAR1. Enbridge provided a demonstration of compliance regarding Paragraph 77.a-c on October 23, 2018. Enbridge has completed the requirements for Paragraph 77.a-c.

Enbridge continues to update the OneSource database with information collected from new NDE investigations as per Subparagraph 77.d of the Consent Decree. Enbridge completed all field investigations of the Consent Decree excavations related to the particular ILI Tool Runs and uploaded the NDE reports within 60 Days into OneSource after the field excavation report was quality reviewed and approved by Enbridge. The OneSource NDE updates for this covered period are summarized in **Table F-1**.

During this reporting period, Enbridge has fully complied with Paragraph 77 by timely uploading to OneSource all NDE data for FRE digs and investigative digs that are subject to Consent Decree requirements. Although Enbridge disagrees that the CD was intended to incorporate excavations that are not governed by the CD, Enbridge agreed that NDE reports from all integrity dig excavations issued from CD ILI programs, including CD FRE, investigative digs and non-CD digs, would be uploaded into OneSource within 60 days after completing the last field investigation related to an ILI.

78 [Mandatory Use of Data Integration Database to Prepare Dig List]

78.a [OneSource ILI Updates]

All new ILI reports were uploaded to OneSource within 29 days after Enbridge's receipt of the Initial ILI report for this reporting period. The dates upon which the various ILI reports were received by Enbridge and uploaded to OneSource during this SIPTUR2 reporting period are listed in **Table F-2**.

78.b [OneSource Interacting Features]

Enbridge completes ILI data review for the purpose of identifying any overlapping, or otherwise interacting, features that may qualify as FREs (in reference to Paragraph 35), within 180 days after the ILI tool is removed from the pipeline, as outlined in the “Lakehead System Integrity Remediation Process” Table 2, Step 7.0. The FREs resulting from this review are summarized in Paragraph 58. **Table F-3** summarizes the reviews completed during this reporting period for axial cracking, corrosion and geometry features. All interacting feature reviews were completed within 180 days after the ILI tool was removed from the pipeline.

Section G – Leak Detection and Control Room Operations

(I) Assessment of Alternative Leak Detection Technologies

79-80 [Create and Submit ALD Report]

No change since SIPTUR1.

(II) Report on Feasibility of Installing External Leak Detection System at the Straits of Mackinac

81-83 [Create and Submit ALD Mackinac Report]

No change since SIPTUR1.

(III) Requirements for New Lakehead Pipelines and Replacement Segments

84 - 91 [Applicability]

No change since SIPTUR1.

Line 62 and Line 93 are not subject to Partial Termination of this subsection and therefore are not included in this report. Line 61 is subject to Partial Termination of this subsection except for P. 90 and P. 91. Information for lines not included in this report is included in future SAR.

(IV) Leak Detection Requirements for Pipelines within the Lakehead System

Line 62 and Line 93 are not subject to Partial Termination of this subsection and therefore are not included in this report. Line 61 is subject to Partial Termination of this subsection, except where explicitly stated otherwise. Information for lines not included in this report is included in future SARs.

92 [Operation of MBS Leak Detection System]

No change since SIPTUR1.

93 [Temporary Suspension of MBS Leak Detection Capabilities]

Please refer to **Table G-1** for a table identifying the number of occurrences by type of instrumentation outage where MBS was temporarily suspended during the reporting period.

94 [Overlapping MBS Segments]

For the events listed in **Table G-1**, leak detection capability was maintained through the use of overlapping segments, except for events where ALD was implemented, as per paragraph 95.

95 [Alternative Leak Detection Requirements]

For the events listed in **Table G-1** where the first and/or last MBS segment had its leak detection capabilities suspended or lost, leak detection capability was maintained by implementing ALD.

96 [Reporting of MBS Outages]

No change since SIPTUR1.

97 [Reporting Requirements]

Refer to **Table G-1** for a table identifying the number of occurrences by type where MBS was temporarily suspended and the number of outages that exceeded reporting requirements. There were no exceedances of the *Time Period to Restore* for this reporting period.

98 [Tolling Requirements]

Station bypass durations for items listed in **Table G-1** included tolling, where applicable.

99 [Installation of New Equipment at Remotely-Controlled Valves]

Table G-2 outlines two excavations that triggered the requirements of Paragraph 99, and these projects have installed required instrumentation in the reporting period. As agreed with the ITP, the updated Paragraph 99 Project Logbook will be provided.

100 [Requirements for Valve Excavation]

No change since SIPTUR1.

101 [Transient-State Sensitivity Analysis]

No change since SIPTUR1.

102 [Rupture Detection System Alarm]

No change since SIPTUR1.

103.a-b ["24-hour" Alarm]

No change since SIPTUR1.

103.c ["24-hour" Alarm Optimization Study within one year of establishing the new 24-Hour alarm]

No change since SIPTUR1.

103.d-f ["24-hour" Alarm Optimization Study within one year of Initial Linefill of Line 93 or any other New Lakehead Pipeline or Replacement Segment]

No change since SIPTUR1.

Line 61, Line 62, and Line 93 replacement segments are not subject to Partial Termination of P.103.d-f and are included in future SARs.

103.g [Compliance and exceptions of compliance to 24-hour alarm optimized threshold and reporting]

No change since SIPTUR1.

(V) Leak Detection Requirements for Control Room

No change since SIPTUR1. Consent Decree requirements under this subsection that are applicable to Line 61, Line 62, and Line 93 are not subject to Partial Termination of this subsection and are included in future SARs.

104 [Applicability]

No change since SIPTUR1.

105 [Alarm Response Team]

No change since SIPTUR1.

106 [Remote Notification of Alarm Response Team]

No change since SIPTUR1.

107 [Audible and Visual Alarms]

No change since SIPTUR1.

108.a-f [Alarm Clearance Procedures]

No change since SIPTUR1.

109.a-e [Unscheduled Shutdown in Response to an Alarm]

No change since SIPTUR1.

110 a-d [Certification of Compliance with 10-Minute Rule and other Requirements of this Subsection]

Enbridge certifies its compliance with the 10-Minute Rule by providing the Lakehead Leak Alarm Report (Appendix 2) signed by the Vice-President, Pipeline Control. This report provides the weekly list of alarms ("WLOA"), Record of Alarms ("ROA"), and Summary of Alarms ("SOA"), as required by this paragraph. There were no non-compliances with the 10-Minute Rule in the reporting period.

111 [Unscheduled Shutdown Procedures in Response to Other Events]

No change since the SIPTUR1.

112 [Reporting of Events from Paragraph 111]

Information related to all incidents during this reporting period where Enbridge received information concerning a potential leak or rupture, including the information provided with each such notice, the start and end times of each respective investigation, and the conclusion and findings of each investigation, is provided in Section G **Table G-3** to this SIPTUR2: Lakehead System Pipeline Incident Reporting.

Section H – Spill Response and Preparedness

113 [Immediate Action to Confirmed Pipeline Leak or Rupture]

Enbridge had no confirmed leaks of one or more barrels on the Lakehead System Mainline within the reporting period. Enbridge had no confirmed pipeline leaks or ruptures of any harmful quantity that reached the waters of the United States or adjoining shorelines during this reporting period. With respect to releases, when they occur, Enbridge proceeds without delay to dispatch trained personnel to the location of the leak and takes action to prevent any migration of oil into waters of the United States, including shutting down the affected line.

During the reporting period, one release at a Lakehead System facility (Plummer Station) triggered PHMSA reporting requirements. The Plummer Station release only triggered PHMSA reporting requirements due to the release of 11 gallons of crude oil. When applicable, releases are reported to PHMSA in accordance with either 49 C.F.R. § 195.50(b), which requires the reporting of any release of 5 gallons or more of hazardous liquid, or 49 C.F.R. § 195.50(e), which requires reporting if the initial estimated property damage, including the cost of clean-up and recovery, value of lost product, and/or damage to the property of the operator and/or others would exceed $50,000.

With respect to the release, Enbridge proceeded, without delay, to dispatch trained personnel to the location of the leak and took action to prevent any migration of oil into waters of the United States or adjoining shorelines.

114 [Required Actions]

Enbridge's compliance with Paragraph 114 is demonstrated by its compliance with Paragraphs 115 to 119, as explained below.

115 [Agreed Exercises]

No change since SIPTUR1.

116 [Field Exercises, Table-Top Exercises, and Community Outreach]

No change since SIPTUR1.

116.a [Annual Field Exercise and Table-Top Exercise Requirements]

No change since SIPTUR1.

116.b [Field Exercise Requirements]

No change since SIPTUR1.

116.c [Table-Top Exercise Requirements]

No change since SIPTUR1.

116.d [Field and Table-Top Invitees]

In accordance with Subparagraph 116.d, prior to conducting the Field and Table-Top Exercises identified under Subparagraph 116.a above, Enbridge sent out 465 invitations for the scheduled 2023 Table-Top and Field Exercises on February 15, 2023.

The invitations provided recipients with more than four weeks' notice of the exercise date. The invitation also indicated that Enbridge would provide meals to persons who attended each exercise, and that the training would be provided at no cost to the invitees, excluding travel costs. Interested respondents were directed in the letter to an external-facing website (http://emergencyresponderexercises.com/) wherein they could register, in addition to being provided with a contact telephone number and e-mail address. During the reporting period zero registrations were submitted using the online system, zero calls were received using the telephone system, and zero e-mail requests for additional information were received and responded to.

Improvements made to the exercise registration program during the past SAR reporting cycles continued as originally implemented. Due to COVID-19 impacts, the postcard mailings (which were a supplemental effort not required by the Consent Decree) continued to be placed on hold, as exercise locations and formats were fluid due to evolving state and local restrictions. Information regarding the virtual exercises was updated on the website as appropriate with regional Emergency Response Coordinators conducting follow up as needed with invitees, including providing situation manuals as needed.

116.e [Community Outreach Sessions]

No change since SIPTUR1.

117 [Control Point Plans]

No change since SIPTUR1.

118 [Response Time]

No change since SIPTUR1.

119 [Coordination with Governmental Planners]

Enbridge's coordination with governmental planners is described in its response to Subparagraphs 119.a to 119.k below.

119.a [Planning Meeting Participation]

In accordance with Subparagraph 119.a, Enbridge attended the following Area and Sub-Area Committee planning meetings:

Eastern Great Lakes Area Committee Fall Meeting, December 12, 2022

A variety of topics were discussed including, but not limited to, the following:

- Mapping of environmentally sensitive areas
- Environmental response management application being designed
- Use of drones in a response
- Research into oil spill response and assessments
- Ice detection and oil under ice detection

- St Lawrence Seaway trans disruption-ship grounding response
- Brief of Shoreline Cleanup Assessment Team (SCAT) exercise last August
- Brief/overview of underwater Remotely Operated Vehicle (ROV)
- Marine firefighting brief-Roger Blough Fire

Northwest Indiana Sub Area Committee Meeting, February 8, 2023

A variety of topics were discussed including, but not limited to, the following:

- The US Coast Guard discussed the Government Initiated Unannounced Exercise (GIUE) program.
- The US EPA discussed the Top 10 Guide for Facility Response Plans. These plans are for non-transportation related facilities that have a reasonable expectation that they could cause harm to the public or environment in the event of a release.
- BP Whiting discussed their facility in Northwest Indiana.
- The EPA is leading an effort to create a response plan for the Kankakee River. They will conduct survey and outreach to stakeholders for input.
- The EPA is holding Transportation Rail Incident Preparedness & Response training for cars that haul Class III flammable liquids. The training will occur 18 May 2023.
- The EPA Region 5 Regional Response Team website has a variety of tools to assist with response and strategy planning, including air monitoring guidance document and resources for Per- and polyfluoroalkyl substance.

Northern Michigan Area Committee Meeting, February 14, 2023

A variety of topics were discussed including, but not limited, to the following:

- The Rogers City Full Scale Exercise will be conducted at the Frog Pond facility on July 25-27, 2023.
- Michigan Tech Great Lakes Research Center is pursuing autonomy and sensing capabilities for disaster prevention and mitigation. They are using under water surveillance, buoys, and other technology for water explorations.
- The EPA, Michigan Department of Environment, Great Lakes and Energy and Michigan Department of Health and Human Services reviewed the response efforts to a large fire at a paper mill in Houghton, Michigan. The fire impacted a 55,000 square foot building that also housed a chemical storage facility. Air monitoring of the fire and burning chemicals was the focus of the response due to the potential impacts on public health and safety.
- Enbridge also provided a joint presentation with Mackinac County emergency management and the Michigan National Guard for a deployment exercise conducted in the Straits. The exercise tested the local emergency response plan, identified potential resources that could be utilized during an incident, and highlighted Enbridge response capabilities.

119.b(1) and (2) [Sub-Area Activities Participation]

No change since SIPTUR1.

119.c [Response Requirements to Sub-Area or Area Committee Recommendations]

No change since SIPTUR1.

119.d [Response Planning Meetings Requirements]

No change since SIPTUR1.

119.e-g [Plans and Prepositioned Emergency Response Locations and Equipment]

No change since the SIPTUR1 other than a request was made to provide an unredacted electronic copy of the "Straits of Mackinac Tactical Response Plan," to the EPA. This plan was provided on February 7, 2023.

119.h [Emergency Response Equipment]

No change since SIPTUR1.

119.i [Inland Spill Response Tactics Guide on Website]

No change since SIPTUR1.

119.j [Inland Spill Response Guide to EPA]

No change since SIPTUR1.

119.k [Electronic Submittal of Documents]

No change since SIPTUR1.

120 [Incident Command System Training]

Enbridge's compliance with ICS training requirements is described in Enbridge's response to Subparagraphs 120.a to 120.c below.

120.a [Incident Command System Training Requirements]

Enbridge has ensured that, upon assigning a person to take on the following roles, each person has completed the training identified below prior to beginning such duties or within the timeframe specified under Subparagraph 120.a:

- Incident Commanders, Deputy Incident Commanders or Alternative Incident Commanders of any Regional Incident Management Team in any Lakehead ICP receive ICS 100B - 400 and position-specific training.
- All other personnel listed as members of any Regional Incident Management Team in any Lakehead ICP receive ICS 100B - 300 and position-specific training.
- Regional Emergency Response Specialist Coordinators receive ICS 100B - 400 training.
- All emergency management department personnel receive ICS 100B – 300 training within 90 days of being assigned.
- Any person designated as Vice President of U.S. Operations, or in an equivalent capacity receive ICS 402 training.
- Any other manager or executive who give direction to field personnel, or is responsible for making funding, personnel, or resource decisions during a spill response (if ICS 100B – 400 has not been taken) receive ICS 402 training.

One individual received ICS 100, 200, 300 and 400 training during the reporting period.

120.b [ICS Training and Incident Management Team Personnel]

In accordance with Subparagraph 120.b, Enbridge has trained at least one employee for each Incident Management Team position as indicated in its ICP.

120.c [Training Requirements and Electronic Certification Documents]

In accordance with Subparagraph 120.c, Enbridge maintains electronic certification documents that confirm personnel training as described in Subparagraph 120.a.

Section I – New Remotely Controlled Valves

121-122. [Installation of 14 Remotely Controlled Valves]

No change since SIPTUR1.

123. [Enbridge Computer Modeling for Valve Locations]

No change since SIPTUR1.

124. [Valve Design and Closure]

No change since SIPTUR1.

Section J – Independent Third Party Consent Decree Compliance Verification

Enbridge notes that the information provided below is being reported only with respect to obligations that are subject to Partial Termination. Subsection IIV.J will remain in effect with respect to all requirements that are not subject to Partial Termination.

126. [ITP Access to Enbridge Lakehead System]

No change since SIPTUR1.

132. [Enbridge – ITP Agreement Tasks 2, 3, 4, and 5]

No change since SIPTUR1.

133.b [Enbridge Response to ITP Verification Report]

No change since SIPTUR1.

134.l [General Requirements – ITP Annual Certification]

No change since SIPTUR1.

135. [Enbridge Enforcement of the Agreement]

No change since SIPTUR1.

136. [ITP Replacement]

No change since SIPTUR1.

IX. – Reporting Requirements

Enbridge notes that the information provided below is being reported only with respect to obligations that are subject to Partial Termination. Subsection IIV.J will remain in effect with respect to all requirements that are not subject to Partial Termination.

144. [SAR Requirements]

This section summarizes information required by Paragraph 144 to the extent that the information is relevant to Enbridge's compliance with a requirement of the Decree and has not been reported separately above. Enbridge also recognizes that all of the matters listed in Paragraph 144 will not always be applicable relative to each of the Decree's requirements. Among matters listed in Paragraph 144 are the following:

i. Completion of milestones
ii. Problems encountered or anticipated in implementing the requirement (together with implemented or proposed solutions)
iii. Status of permit applications
iv. Operation and maintenance issues
v. Reports to State Agencies
vi. Number by types, of features repaired or mitigated during the reporting period and the number, by type, planned for future repair or mitigation
vii. Any significant changes or issues since the previous SAR

In many cases, the matters listed above have been reported in previous sections of the Report that relate to specific Consent Decree requirements. However, Enbridge has selected the activities reported below to draw specific attention to challenges encountered during the reporting period, pursuant to Paragraph 144.

In support of transparency about interpretation issues with the Consent Decree as well as problems encountered, Enbridge included a table listing the interpretation issues (details below) as well as a bulleted list of problems encountered with a discussion for each following the list.

Consent Decree Interpretation Issues

There are a number of Consent Decree interpretation issues that the parties have resolved or that Enbridge is working to resolve with the ITP and EPA. Enbridge is proceeding using the current Enbridge interpretation in areas where the interpretation has not been agreed on by all parties. As shown in **Table IX-1,** there are no interpretation issues in this reporting period.

Problems Encountered or Anticipated in Implementing Consent Decree Requirements

There were no problems encountered or anticipated in implementing Consent Decree requirements for the reporting period.

Reports to State Agencies

Enbridge is currently a party to litigation involving Line 3 in Minnesota, Line 5 in Michigan and Line 5 in Wisconsin. In connection with these matters, the company periodically provides legal filings to courts or agencies in those states. Enbridge does not consider those submissions, most of which are publicly available, to be "reports" of the type covered by the Consent Decree. Similarly, Enbridge is in the process of seeking Wisconsin and federal permits relating to construction of a line replacement project on Line 5 to reroute the segment around the Bad River Reservation in Wisconsin. As well, Enbridge submitted materials to Michigan state agencies in connection with the planned replacement of the Straits Pipelines at the Straits of Mackinac. Enbridge does not consider permit applications of this type to be "reports" covered by Paragraph 144.

Any significant changes or issues since the previous SAR

As reported in SAR11, the Clearbrook, LaSalle Creek, and MP 1102.5 Comprehensive Enforcement Resolutions are final and public.

There were no significant changes or issues since SIPTUR1 or SAR11.

145. [Non-Compliance]

There were no non-compliances identified during the SIPTUR2 reporting period; see also **Table IX-2.**

146. [Discharges from a Lakehead System Pipeline]

Table IX-3 in Appendix 1 identifies no discharge from a Lakehead System Pipeline of one or more barrels of oil that occurred during the reporting period for this SIPTUR2. There were no instances of discharge of oil during the reporting period that reached any waterbody or waters of the United States or adjoining shoreline in a quantity as may be harmful. Enbridge has committed to report all Post Incident Reports that were not previously requested and provided during the current SIPTUR2 reporting period. No such reports are needed as of this reporting period and are therefore not provided in a separate Appendix.

147. [Update on Discharges from a Lakehead System Pipeline reported in IPTUR (MiniSAR) and SIPTUR1]

There is one update to the IPTUR report at a Lakehead System facility, as shown in **Table IX-4**. This discharge at a Lakehead System facility was not CD reportable, but for reporting consistency with previous reports the information has been included in the table.

148. [Copies of all Post Incident Reports in SIPTUR2]

There were no discharges of one or more barrels of oil or any that reached a waterbody that occurred during the reporting period for SIPTUR2.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on any personal knowledge I may have and my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

FOR DEFENDANTS:

ENBRIDGE ENERGY, LIMITED PARTNERSHIP,
ENBRIDGE PIPELINES (LAKEHEAD) L.L.C.,
ENBRIDGE ENERGY PARTNERS, L.P.,
ENBRIDGE ENERGY MANAGEMENT, L.L.C.,
ENBRIDGE ENERGY COMPANY, INC., and
ENBRIDGE EMPLOYEE SERVICES, INC.,

[redacted], Vice President U.S. Operations, Liquids Pipelines

FOR DEFENDANTS:

ENBRIDGE OPERATIONAL SERVICES, INC.,
ENBRIDGE PIPELINES INC., and
ENBRIDGE EMPLOYEE SERVICES CANADA INC.

[redacted], Executive Vice President and President, Liquids Pipelines

Appendix 1 SIPTUR2 Sections A-J and IX Tables

Reporting Period: December 3, 2022 to March 2, 2023

Section A

There are no tables associated with Section A.

Section B

There are no tables associated with Section B.

Section C

There are no tables associated with Section C.

Section D

The following 1 page is Table D-1: P. 28.a-b ILI Runs Completed During this Reporting Period.

Section D

Notes for Section D tables:

1. Dates below are in month/day/year format.
2. For all dates where the deadline fell on a weekend or US holiday the date required was adjusted to the next business day per Consent Decree Definition for "Day" under IV.10.m.

Table D-1: P. 28.a-b ILI Runs Completed During this Reporting Period						
Tool Run ID	**Line**	**Segment**	**Tool**	**Pull Date**[ODS1]	**Threat Monitored**	**Required Completion Date**
11201	02	[redacted]	GEMINI	1/19/2023	Corrosion	2/6/2023
11201	02		GEMINI	1/19/2023	Geometry	2/6/2023
11161	02		GEMINI	1/12/2023	Corrosion	1/18/2023
11161	02		GEMINI	1/12/2023	Geometry	1/18/2023
11190	04		DuDi UCM	1/24/2023	Corrosion	2/6/2023
11190	04		DuDi UCM	1/24/2023	Crack	2/6/2023
11203	04		DuDi UCM	1/31/2023	Corrosion	2/13/2023
11203	04		DuDi UCM	1/31/2023	Crack	2/13/2023
11247	04		UCM	2/8/2023	Crack	3/13/2023
12837	04		GeoPig	2/2/2023	Geometry	2/6/2023
11194	05		UCc	12/13/2022	Crack	1/10/2023
11146	05		UCc	12/16/2022	Crack	1/10/2023

TABLE NOTE:
[ODS1] *Pull Date: Milestone Report – Power BI Dashboard*

The following 1 page is Table D-2: P.28.c Incomplete or Invalid ILIs and Rerun Dates.

Table D-2: P.28.c Incomplete or Invalid ILIs and Rerun Dates									
Tool Run ID	**Line**	**Segment**	**Tool**	**Threat Monitored**	**Inspection Deadline**[ODS1]	**Pull Date**[ODS2]	**Date of DQA Notification** [ODS3]	**Rerun Tool Run ID**	**Rerun Date**[ODS4]
11246	04	[redacted]	XGP	Geometry	2/6/2023	1/10/2023	1/17/2023	12837	2/2/2023

TABLE NOTE:

[ODS1] *Inspection Deadline: Previous SAR*
[ODS2] *Pull Date: Milestone Report – Power BI Dashboard*
[ODS3] *Date of DQA Notification: DQA Failure Form*
[ODS4] *Rerun Date: Power BI Dashboard – Tool Run Report*

The following 1 page is Table D-4: P. 30 Changes to Previous 12-Month ILI Schedule (May 23, 2021 to May 22, 2022).

Table D-4: P. 30 Changes to Previous 12-Month ILI Schedule (May 23, 2022 – May 22, 2023)							
Original Run ID	**Revised Run ID**	**Line**	**Segment Name**	**Tool**	**Threat Monitored**	**Required Completion Date**	**Schedule Revision Comments**
10859	N/A	L0002	[redacted]	Proton	Crack	2/26/2024	Run deferred from May 22, 2023 to June 20, 2023
10858	N/A	L0002		MFL4	Corrosion	11/2/2022	Tool updated from GEMINI to MFL4
10858	N/A	L0002		MFL4	Geometry	11/2/2022	Tool updated from GEMINI to MFL4
11246	12837	L0004		Geopig	Geometry	2/6/2023	Original run failed. Tool change from XGP to Geopig.
10915	12179	L0006 A		AFD	Corrosion	6/1/2023	Updated tool run ID. Last metal loss ILI run completed May 2022. AFD ILI deferred to 6/1/2023.
10914	12178	L0006 A		AFD	Corrosion	6/1/2023	Updated tool run ID. Last metal loss ILI run completed May 2022. AFD ILI deferred to 6/1/2023.

The following 1 page is Table D-6: P. 31 ILIs with Minor Tool Performance Deficiencies.

Table D-6: P. 31 ILIs with Minor Tool Performance Deficiencies							
	Line	**Segment**	**Tool**	**Inspection Deadline[ODS1]**	**Pull Date [ODS2]**	**ILI Tool Run Accepted?**	**Further Action Required?**
10858	02	[redacted]	MFL4	11/2/2022	10/20/2022	Yes	No
10888	04		DuDi UCM	10/17/2022	7/20/1011	Yes	No

TABLE NOTE:

[ODS1] *Inspection Deadline: Previous SAR*

[ODS2] *Pull Date: Milestone Report – Power BI Dashboard*

The following 1 page is Table D-7: P. 32.a-c Valid In-line Inspection Runs with Initial ILI Report Received.

Table D-7: P. 32.a-c Valid In-line Inspection Runs with Initial ILI Report Received							
Tool Run ID[1]	**Line**	**Segment**	**Tool**	**Report Type**	**Report Due Date**	**Report Received Date[ODS1]**	**Report Received On Time?**
10858	02	[redacted]	MFL4	Corrosion	1/18/2023	1/18/2023	Yes
10858	02		MFL4	Geometry	1/18/2023	1/18/2023	Yes
11206	64		GEMINI	Corrosion	3/1/2023	3/1/2023	Yes
11206	64		GEMINI	Geometry	3/1/2023	3/1/2023	Yes
10969	78		MFL4	Corrosion	2/10/2023	2/10/2023	Yes
10969	78		MFL4	Geometry	2/10/2023	2/10/2023	Yes

TABLE NOTE:

[ODS1] Report Received Date: Vendor ILI Report Email

The following 1 page is Table D-8: P. 33.b ILIMRR Version 8.3 Table 5 Inside Diameter Priority Notification Criteria for Ovalities and Other Deformation Features.

Table D-8: P. 33.b ILIMRR Version 8.3 Table 5 Inside Diameter Priority Notification Criteria for Ovalities and Other Deformation Features				
NPS (inch)	**Actual OD (inch)**	**Actual OD (mm)**	**Min ID (inch)**	**Min ID (mm)**
6	6.625	168.28	5.2	131.2
8	8.625	219.08	7.1	179.3
10	10.75	273.05	9.1	230.3
12	12.75	323.85	11.0	279.4
16	16	406.4	14.3	362.0
18	18	457.2	15.8	400.1
20	20	508	17.9	454.7
22	22	558.8	19.7	500.6
24	24	609.6	21.5	546.1
26	26	660.4	23.5	596.9
30	30	762	27.1	687.8
34	34	863.6	31.1	789.9
36	36	914.4	33.0	837.0
42	42	1066.8	38.6	981.2
48	48	1219.2	44.4	1127.8

The following 1 page is Table D-10: P. 34.a Preliminary Review of Initial ILI Reports.

Table D-10: P. 34.a Preliminary Review of Initial ILI Reports									
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Received Date** *ODS1*	**Report Type**	**Date Preliminary Review Required**	**Date Preliminary Review Completed** *ODS2*	**Review Complet-ed on Time?**	**Data Quality Concerns?** *ODS3*
10858	02	[redacted]	MFL4	1/18/2023	Corrosion	2/17/2023	2/16/2023	Yes	Yes
10858	02		MFL4	1/18/2023	Geometry	2/17/2023	2/7/2023	Yes	Yes
10888	04		DuDi UCM	11/17/2022	Crack	12/19/2022	12/9/2022	Yes	Yes
10905	05		UCx	11/10/2022	Crack	12/12/2022	12/5/2022	Yes	Yes

TABLE NOTE:

ODS1 Report Received Date: Share Drive – PI Listing Approval Confirmation Email

ODS2 Date Preliminary Review Complete: Share Drive – PI Listing Approval Confirmation Email

ODS3 Data Quality Concerns?: Share Drive - Program Summary Document: Crack/Corrosion: Inspection Report Review and Remarks, Geometry: Back to Back Inspection Comparison

The following 1 page is Table D-11: P. 34.c ILI Reports with Reporting and/or Data Quality Issues.

Table D-11: P. 34.c ILI Reports with Reporting and/or Data Quality Issues								
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Initial Report Received Date**[ODS1]	**Date Preliminary Review of Initial ILI Report Required**	**Date Preliminary Review of Initial ILI Report Completed**[ODS2]	**Data Quality Concerns Identified and Resolved**
10858	02	[redacted]	MFL4	Corrosion	1/18/2023	2/17/2023	2/16/2023	Yes
10858	02		MFL4	Geometry	1/18/2023	2/17/2023	2/7/2023	Yes
10888	04		DuDi UCM	Crack	11/17/2022	12/17/2022	12/9/2022	Yes
10905	05		UCx	Crack	11/10/2022	12/10/2022	12/5/2022	Yes

TABLE NOTE:

[ODS1] *Initial Report Received Date ODS: Share Drive – PI Listing Approval Confirmation Email*

[ODS2] *Date Preliminary Review of Initial ILI Report Completed ODS: PI Listing Approval Request Email*

The following 1 page is Table D-12: P. 34.d Data Quality Evaluation Timelines.

Table D-12: P. 34.d Data Quality Evaluation Timelines							
Tool Run ID	**Line**	**Segment**	**Tool**	**Pull Date**[ODS1]	**Report Type**	**Deadline to Complete All ILI Data Quality Evaluations**	**Data Quality Evaluations Completed Within 180 Days?**
11201	02	[redacted]	GEMINI	1/19/2023	Corrosion	7/18/2023	FR
11201	02		GEMINI	1/19/2023	Geometry	7/18/2023	FR
11161	02		GEMINI	1/12/2023	Corrosion	7/11/2023	FR
11161	02		GEMINI	1/12/2023	Geometry	7/11/2023	FR
10858	02		MFL4	10/20/2022	Corrosion	4/18/2023	Yes
10858	02		MFL4	10/20/2022	Geometry	4/18/2023	Yes
10888	04		DuDi UCM	7/20/2022	Crack	1/16/2023	Yes
11190	04		DuDi UCM	1/24/2023	Corrosion	7/23/2023	FR
11190	04		DuDi UCM	1/24/2023	Crack	7/23/2023	FR
11203	04		DuDi UCM	1/31/2023	Corrosion	7/30/2023	FR
11203	04		DuDi UCM	1/31/2023	Crack	7/30/2023	FR
11247	04		UCM	2/8/2023	Crack	8/7/2023	FR
10905	05		UCx	7/13/2022	Crack	1/9/2023	Yes
11194	05		UCc	12/13/2022	Crack	6/11/2023	FR
11146	05		UCc	12/16/2022	Crack	6/14/2023	FR
11206	64		GEMINI	12/1/2022	Corrosion	5/30/2023	FR
11206	64		GEMINI	12/1/2022	Geometry	5/30/2023	FR
10969	78		MFL4	11/12/2022	Corrosion	5/11/2023	FR
10969	78		MFL4	11/12/2022	Geometry	5/11/2023	FR

TABLE NOTE:
"FR" indicates that this information is outside the reporting period of this SIPTUR2
[ODS1] Pull Date: Milestone Report – Power BI Dashboard

The following 1 page is Table D-13: P. 34.e Discrepancies between Two Successive ILI Runs.

Table D-13: P. 34.e Discrepancies between Two Successive ILI Runs							
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Severity Discrepancy?**	**Density Discrepancy?**	**Feature Type Discrepancy?**
10858	02	[redacted]	MFL4	Corrosion	No	Yes	No
10858	02		MFL4	Geometry	No	Yes	No
10905	05		UCx	Crack	No	Yes	No

The following 1 page is Table D-14: P. 37 Deadlines for Placing Features Requiring Excavation on the Dig List.

Table D-14: P. 37 Deadlines for Placing Features Requiring Excavation on the Dig List													
Tool Run ID	**Line**	**Seg-ment**	**Tool**	**Threat Type**	**Pull Date**[ODS1]	**Burst Pressure Calculation Date**[ODS2]	**Remaining Life Calculation Date**[ODS3]	**Other Features Identified Date** [ODS4]	**SQuAD and QuAD Complet-ion date** [ODS5]	**Number of Features Identified**	**Date All Features Added to Dig List**[ODS6]	**Within 180 Days of Tool Pull Date?**	**Within 5 Days of Calculations?**
2972	L00 02	[redacted]	MFL 4	Corrosion	10/20/2022	2/16/2023	2/16/2023	2/16/2023	2/16/2023	1	2/16/2023	Yes	Yes

TABLE NOTES:

[ODS1] *Pull Date: Milestone Report – Power BI Dashboard*

[ODS2] *Burst Pressure Calculation Date: Share Drive - PI Listing Approval Confirmation Email*

[ODS3] *Remaining Life Calculation Date: Share Drive - PI Listing Approval Confirmation Email*

[ODS4] *Other Features Identified Date: Share Drive - PI Listing Approval Confirmation Email*

[ODS5] *SQuAD and QuAD Completion date: Share Drive - PI Listing Approval Confirmation Email*

[ODS6] *Date All Features Added to Dig List: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"*

The following 2 pages are Table D-15: P. 39.a-b FREs Repaired and Planned for Repair.

Table D-15: P. 39.a-b FREs Repaired and Planned for Repair										
Dig ID	Line	Segment	Girth Weld	Tool Run ID	Date of Repair / Mitigation[1], *ODS1*	Crack Features	Corrosion Features	Axial Grooving Features	Interact-ing Features	Geome-try Features
32385	L0002	[redacted]	158360	10858	FR	0	1	0	0	0
32161	L0005		49760	10907	FR	1	0	0	0	0
32162	L0005		84700	10907	FR	1	0	0	0	0
32164	L0005		101830	10907	FR	1	0	0	0	0
32166	L0005		137380	10907	FR	1	0	0	0	0
32167	L0005		175960	10907	FR	1	0	0	0	0
32065	L0005		51170	10909	2/10/2023	1	0	0	0	0
32066	L0005		59470	10909	FR	1	0	0	0	0
32067	L0005		83660	10909	2/9/2023	1	0	0	0	0
32069	L0005		190020	10909	1/14/2023	0	0	0	1	0
32071	L0005		197890	10909	2/1/2023	1	0	0	0	0
32072	L0005		217650	10909	1/24/2023	1	0	0	0	0
32074	L0005		225020	10909	1/13/2023	0	0	0	1	0
31472	L0006A		18190	10919	FR	0	1	0	0	0
31475	L0006A		74790	10919	2/14/2023	0	1	0	0	0
31476	L0006A		80630	10919	FR	0	1	0	0	0
31477	L0006A		92550	10919	FR	0	1	0	0	0
31478	L0006A		95950	10919	FR	0	1	0	0	0
31479	L0006A		96300	10919	FR	0	1	0	0	0
31480	L0006A		96310	10919	FR	0	1	0	0	0
31481	L0006A		127040	10919	FR	0	1	0	0	0
31482	L0006A		137980	10919	FR	0	1	0	0	0
31483	L0006A		155400	10919	FR	0	1	0	0	0
31484	L0006A		174640	10919	FR	0	1	0	0	0
31485	L0006A		256721	10919	FR	0	1	0	0	0
31486	L0006A		257540	10919	FR	0	1	0	0	0
31487	L0006A		289800	10919	12/16/2022	0	1	0	0	0
31488	L0006A		297480	10919	FR	0	1	0	0	0
31491	L0006A		299720	10919	12/6/2022	0	1	0	0	0
31494	L0006A		303050	10919	FR	0	1	0	0	0
31496	L0006A		309480	10919	1/28/2023	0	1	0	0	0
31499	L0006A		32500	10919	12/21/2022	0	1	0	0	0
31500	L0006A		38260	10919	12/15/2022	0	1	0	0	0
31507	L0006A		249190	10919	1/10/2023	0	1	0	0	0
31508	L0006A		250670	10919	1/7/2023	0	1	0	0	0
31509	L0006A		273430	10919	12/17/2022	0	1	0	0	0
31514	L0006A		280790	10919	12/20/2022	0	1	0	0	0
31515	L0006A		289430	10919	12/4/2022	0	1	0	0	0
31516	L0006A		289630	10919	12/8/2022	0	1	0	0	0
31517	L0006A		292570	10919	12/13/2022	0	1	0	0	0

Table D-15: P. 39.a-b FREs Repaired and Planned for Repair										
					Repair / Mitigation[1],					Features
31519	L0006A	[redacted]	297120	10919	12/5/2022	0	1	0	0	0
31520	L0006A		297910	10919	12/5/2022	0	1	0	0	0
31522	L0006A		300920	10919	12/10/2022	0	1	0	0	0
31523	L0006A		301880	10919	12/17/2022	0	1	0	0	0
31524	L0006A		302160	10919	12/4/2022	0	1	0	0	0
31525	L0006A		302190	10919	12/5/2022	0	1	0	0	0
31527	L0006A		310450	10919	1/10/2023	0	1	0	0	0
31528	L0006A		310810	10919	12/17/2022	0	1	0	0	0
32051	L0006A		204410	11053	FR	4	0	0	0	0
32052	L0006A		217220	11053	2/10/2023	1	0	0	0	0
32053	L0006A		233560	11053	FR	1	0	0	0	0
32054	L0006A		269560	11053	FR	1	0	0	0	0
32056	L0006A		305490	11053	FR	1	0	0	0	0
31776	L0006A		162030	12046	FR	0	1	0	0	0
31778	L0006A		290160	12046	12/18/2022	0	1	0	0	0
31779	L0006A		291850	12046	12/17/2022	0	1	0	0	0
31781	L0006A		299680	12046	12/13/2022	0	1	0	0	0
31782	L0006A		309410	12046	1/30/2023	0	1	0	0	0
31593	L0006A		45130	12061	FR	0	1	0	0	0
31594	L0006A		45390	12061	FR	0	1	0	0	0
31596	L0006A		64570	12061	FR	0	1	0	0	0
31597	L0006A		64830	12061	FR	0	1	0	0	0
31598	L0006A		101870	12061	1/30/2023	0	1	0	0	0
31602	L0006A		165590	12061	12/3/2022	0	1	0	0	0
31603	L0006A		169990	12061	2/15/2023	0	1	0	0	0
31605	L0006A		178850	12061	12/18/2022	0	1	0	0	0
31606	L0006A		184960	12061	1/18/2023	0	1	0	0	0
31607	L0006A		185580	12061	2/17/2023	0	2	0	0	0
31608	L0006A		187800	12061	1/27/2023	0	1	0	0	0
31609	L0006A		187850	12061	1/30/2023	0	1	0	0	0
31610	L0006A		188020	12061	1/23/2023	0	3	0	0	0
31611	L0006A		189830	12061	FR	0	1	0	0	0
31612	L0006A		190480	12061	FR	0	1	0	0	0
31613	L0006A		196210	12061	FR	0	1	0	0	0
31614	L0006A		200170	12061	12/18/2022	0	1	0	0	0
31619	L0006A		225660	12061	12/19/2022	0	1	0	0	0
31620	L0006A		225780	12061	12/15/2022	0	1	0	0	0
31621	L0006A		225860	12061	FR	0	1	0	0	0
31622	L0006A		230000	12061	FR	0	1	0	0	0
Total: 85						**18**	**65**	**0**	**2**	**0**

The following 1 page is Table D-17: P. 44.a-b Initial Predicted Burst Pressure and Initial Remaining Life Calculations.

Table D-17: P. 44.a-b Initial Predicted Burst Pressure and Initial Remaining Life Calculations											
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Pull Date** *ODS1*	**Date Preliminary Review Completed** *ODS2*	**Data Quality Concerns?**	**Calculation Deadline (1)[1]**	**Calculation Deadline (2)[1]**	**Burst Pressure Calculation Date** *ODS3*	**Remaining Life Calculation Date** *ODS4*
10858	02	GF-CR	[redacted]	Corrosion	10/20/2022	2/16/2023	Yes	4/13/2023	4/13/2023	2/16/2023	2/16/2023
10858	02	GF-CR		Geometry	10/20/2022	2/7/2023	Yes	4/4/2023	4/13/2023	2/7/2023	2/7/2023
10888	04	CR-CS		Crack	7/20/2022	12/9/2022	Yes	2/3/2023	1/11/2023	12/9/2022	12/9/2022
10905	05	BC-RW		Crack	7/13/2022	12/5/2022	Yes	1/30/2023	1/4/2023	12/5/2022	12/5/2022

TABLE NOTE:

[1] Calculation Deadline (1) – 8 weeks after completing data quality review with respect to the feature and/or pipeline section where the feature is located. Calculation Deadline (2) – 175 days after the ILI tool pull date.

ODS1 Pull Date: Milestone Report – Power BI Dashboard

ODS2 Date Preliminary Review Complete: Share Drive – PI Listing Approval Confirmation Email

ODS3 Burst Pressure Calculation Date: PI Listing Approval Confirmation Email – Share Drive Documentation

ODS4 Remaining Life Calculation Date: PI Listing Approval Confirmation Email – Share Drive Documentation

The following 3 pages are Table D-18: P. 46.a, c Identified Digs.

Table D-18: P. 46.a, c Identified Digs								
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool Run ID**	**Tech-nology**	**Date of Discovery / Feature Added to Dig List** *ODS1*	**Repair / Mitigation Deadline** *ODS2*	**Date of Repair / Mitigation**[1], *ODS3*
32385	L0002	[redacted]	158360	10858	MFL	2/16/2023	8/15/2023	FR
32161	L0005		49760	10907	UTCD	11/21/2022	5/19/2023	FR
32162	L0005		84700	10907	UTCD	11/21/2022	5/19/2023	FR
32164	L0005		101830	10907	UTCD	11/21/2022	11/20/2023	FR
32166	L0005		137380	10907	UTCD	11/21/2022	11/20/2023	FR
32167	L0005		175960	10907	UTCD	11/21/2022	11/20/2023[2]	FR
32065	L0005		51170	10909	UTCD	11/16/2022	5/15/2023	2/10/2023
32066	L0005		59470	10909	UTCD	11/16/2022	11/16/2023	FR
32067	L0005		83660	10909	UTCD	11/16/2022	5/15/2023	2/9/2023
32069	L0005		190020	10909	UTCD	11/16/2022	1/17/2023	1/14/2023
32071	L0005		197890	10909	UTCD	11/16/2022	5/15/2023	2/1/2023
32072	L0005		217650	10909	UTCD	11/16/2022	5/15/2023	1/24/2023
32074	L0005		225020	10909	UTCD	11/16/2022	1/17/2023	1/13/2023
31472	L0006A		18190	10919	UTWM	7/14/2022	7/14/2023	FR
31475	L0006A		74790	10919	UTWM	7/14/2022	7/14/2023	2/14/2023
31476	L0006A		80630	10919	UTWM	7/14/2022	7/14/2023	FR
31477	L0006A		92550	10919	UTWM	7/14/2022	7/14/2023	FR
31478	L0006A		95950	10919	UTWM	7/14/2022	7/14/2023	FR
31479	L0006A		96300	10919	UTWM	7/14/2022	7/14/2023	FR
31480	L0006A		96310	10919	UTWM	7/14/2022	7/14/2023	FR
31481	L0006A		127040	10919	UTWM	7/14/2022	7/14/2023	FR
31482	L0006A		137980	10919	UTWM	7/14/2022	7/14/2023	FR
31483	L0006A		155400	10919	UTWM	7/14/2022	7/14/2023	FR
31484	L0006A		174640	10919	UTWM	7/14/2022	7/14/2023	FR
31485	L0006A		256721	10919	UTWM	7/14/2022	7/14/2023	FR
31486	L0006A		257540	10919	UTWM	7/14/2022	7/14/2023	FR
31487	L0006A		289800	10919	UTWM	7/14/2022	7/14/2023	12/16/2022
31488	L0006A		297480	10919	UTWM	7/14/2022	7/14/2023	FR
31491	L0006A		299720	10919	UTWM	7/14/2022	7/14/2023	12/6/2022
31494	L0006A		303050	10919	UTWM	7/14/2022	7/14/2023	FR
31496	L0006A		309480	10919	UTWM	7/14/2022	7/14/2023	1/28/2023
31499	L0006A		82500	10919	UTWM	7/15/2022	1/10/2023	12/21/2022

Table D-18: P. 46.a, c Identified Digs								
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool Run ID**	**Tech-nology**	**Date of Discovery / Feature Added to Dig List** *ODS1*	**Repair / Mitigation Deadline** *ODS2*	**Date of Repair / Mitigation[1],** *ODS3*
31500	L0006A	[redacted]	88260	10919	UTWM	7/15/2022	1/10/2023	12/15/2022
31507	L0006A		249190	10919	UTWM	7/15/2022	1/10/2023	1/10/2023
31508	L0006A		250670	10919	UTWM	7/15/2022	1/10/2023	1/7/2023
31509	L0006A		273430	10919	UTWM	7/15/2022	1/10/2023	12/17/2022
31514	L0006A		280790	10919	UTWM	7/15/2022	1/10/2023	12/20/2022
31515	L0006A		289430	10919	UTWM	7/15/2022	1/10/2023	12/4/2022
31516	L0006A		289630	10919	UTWM	7/15/2022	1/10/2023	12/8/2022
31517	L0006A		292570	10919	UTWM	7/15/2022	1/10/2023	12/13/2022
31519	L0006A		297120	10919	UTWM	7/15/2022	1/10/2023	12/5/2022
31520	L0006A		297910	10919	UTWM	7/15/2022	1/10/2023	12/5/2022
31522	L0006A		300920	10919	UTWM	7/15/2022	1/10/2023	12/10/2022
31523	L0006A		301880	10919	UTWM	7/15/2022	1/10/2023	12/17/2022
31524	L0006A		302160	10919	UTWM	7/15/2022	1/10/2023	12/4/2022
31525	L0006A		302190	10919	UTWM	7/15/2022	1/10/2023	12/5/2022
31527	L0006A		310450	10919	UTWM	7/15/2022	1/10/2023	1/10/2023
31528	L0006A		310810	10919	UTWM	7/15/2022	1/10/2023	12/17/2022
32051	L0006A		204410	11053	UTCD	11/15/2022	5/15/2023	FR
32052	L0006A		217220	11053	UTCD	11/15/2022	5/15/2023	2/10/2023
32053	L0006A		233560	11053	UTCD	11/15/2022	5/15/2023	FR
32054	L0006A		269560	11053	UTCD	11/15/2022	5/15/2023	FR
32056	L0006A		305490	11053	UTCD	11/15/2022	11/15/2023	FR
31776	L0006A		162030	12046	MFL	9/21/2022	9/21/2023	FR
31778	L0006A		290160	12046	MFL	9/21/2022	3/20/2023	12/18/2022
31779	L0006A		291850	12046	MFL	9/21/2022	3/20/2023	12/17/2022
31781	L0006A		299680	12046	MFL	9/21/2022	3/20/2023	12/13/2022
31782	L0006A		309410	12046	MFL	9/21/2022	3/20/2023	1/30/2023
31593	L0006A		45130	12061	MFL	8/4/2022	8/4/2023	FR
31594	L0006A		45390	12061	MFL	8/4/2022	8/4/2023	FR
31596	L0006A		64570	12061	MFL	8/4/2022	8/4/2023	FR
31597	L0006A		64830	12061	MFL	8/4/2022	8/4/2023	FR
31598	L0006A		101870	12061	MFL	8/4/2022	1/31/2023	1/30/2023
31602	L0006A		165590	12061	MFL	8/4/2022	8/4/2023	12/3/2022

Table D-18: P. 46.a, c Identified Digs								
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool Run ID**	**Tech-nology**	**Date of Discovery / Feature Added to Dig List** *ODS1*	**Repair / Mitigation Deadline** *ODS2*	**Date of Repair / Mitigation**[1], *ODS3*
31603	L0006A	[redacted]	169990	12061	MFL	8/4/2022	8/4/2023	2/15/2023
31605	L0006A		178850	12061	MFL	8/4/2022	8/4/2023	12/18/2022
31606	L0006A		184960	12061	MFL	8/4/2022	1/31/2023	1/18/2023
31607	L0006A		185580	12061	MFL	8/4/2022	8/4/2023	2/17/2023
31608	L0006A		187800	12061	MFL	8/4/2022	1/31/2023	1/27/2023
31609	L0006A		187850	12061	MFL	8/4/2022	1/31/2023	1/30/2023
31610	L0006A		188020	12061	MFL	8/4/2022	1/31/2023	1/23/2023
31611	L0006A		189830	12061	MFL	8/4/2022	8/4/2023	FR
31612	L0006A		190480	12061	MFL	8/4/2022	8/4/2023	FR
31613	L0006A		196210	12061	MFL	8/4/2022	8/4/2023	FR
31614	L0006A		200170	12061	MFL	8/4/2022	8/4/2023	12/18/2022
31619	L0006A		225660	12061	MFL	8/4/2022	8/4/2023	12/19/2022
31620	L0006A		225780	12061	MFL	8/4/2022	8/4/2023	12/15/2022
31621	L0006A		225860	12061	MFL	8/4/2022	8/4/2023	FR
31622	L0006A		230000	12061	MFL	8/4/2022	8/4/2023	FR

TABLE NOTES:

[1] "FR" indicates that this information is outside the reporting period of this SIPTUR1

[2] Dig deadline extended. Refer to P.49

ODS1 Date of Discovery / Feature Added to Dig List: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"

ODS2 Repair/Mitigation Deadline: eDig Report - Power BI Dashboard

ODS3 Repair / Mitigation Deadline: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d

The following 1 page is Table D-19: P. 46.a Cancelled Digs.

Table D-19: P. 46.a Cancelled Digs						
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool Run ID**	**Technology**	**Reason for Dig Cancellation**
32064	L0005	[redacted]	16040	10909	UTCD	The dig on joint 16040 was cancelled after detailed review confirmed the joint was previously excavated and the feature is no longer considered a CD FRE. The location was repaired by grinding in 2011 with the notch-like ILI call consistent with the grind extents. There is a known issue for the ultrasonic tool to falsely report a feature (false positive) due to reflection from grinds. See L5 MP 1107.6513 GW 16040 Crack 2011 NDE report which confirms the grinds and that there were no reported linear indications on the joint.
31501	L0006A		88840	10919	UTWM	An Issue 2 report was received on September 8, 2022, correcting a data quality issue that was identified prior to the features being added to the dig list. The Issue 2.0 updates the columns “DEPTH UTWM WT” and “Depth PERCENT UTWM WT” for the two features which are on a girth weld with a wall thickness transition change. The update confirms the features are not FREs.
31506	L0006A		237600	10919	UTWM	

The following 3 pages are Table D-20: P. 46.b, d PPRs.

Table D-20: P. 46.b, d PPRs								
		Segment			Repair / Deadline[1]	Date *ODS3*	Repair / Date *ODS4*	Removal Date[2] *ODS5*
40963	L0005		49760	11/21/2022	5/19/2023	11/22/2022	FR	FR
40964	L0005		84700	11/21/2022	5/19/2023	11/22/2022	FR	FR
40965	L0005		175960	11/21/2022	11/20/2023	11/22/2022	FR	FR
36938	L0005		16040	11/16/2022	5/15/2023	11/18/2022	FR	FR
36939	L0005		51170	11/16/2022	5/15/2023	11/18/2022	2/10/2023	FR
36940	L0005		83660	11/16/2022	5/15/2023	11/18/2022	2/9/2023	FR
36941	L0005		119020	11/16/2022	1/17/2023	11/18/2022	11/18/2022	12/20/2022
36942	L0005		190020	11/16/2022	1/17/2023	11/18/2022	1/14/2023	2/13/2023
36943	L0005		197890	11/16/2022	5/15/2023	11/18/2022	2/1/2023	FR
36944	L0005		217650	11/16/2022	5/15/2023	11/18/2022	1/24/2023	2/13/2023
36945	L0005		223700	11/16/2022	5/15/2023	11/18/2022	11/17/2022	12/20/2022
36946	L0005		225020	11/16/2022	1/17/2023	11/18/2022	1/13/2023	2/13/2023
36178	L0006A		18190	7/14/2022	7/14/2023	7/18/2022	FR	FR
36179	L0006A		73870	7/15/2022	1/10/2023	7/18/2022	10/27/2022	12/19/2022
36180	L0006A		73930	7/14/2022	7/14/2023	7/18/2022	10/27/2022	2/17/2023
36181	L0006A		74040	7/14/2022	7/14/2023	7/18/2022	10/28/2022	2/24/2023
36182	L0006A		80630	7/14/2022	7/14/2023	7/18/2022	FR	FR
36183	L0006A		82500	7/15/2022	1/10/2023	7/18/2022	12/21/2022	2/24/2023
36184	L0006A		88260	7/15/2022	1/10/2023	7/18/2022	12/15/2022	2/24/2023
36185	L0006A		95950	7/14/2022	7/14/2023	7/18/2022	FR	FR
36186	L0006A		96300	7/14/2022	7/14/2023	7/18/2022	FR	FR
36187	L0006A		96310	7/14/2022	7/14/2023	7/18/2022	FR	FR
36188	L0006A		100120	7/15/2022	1/10/2023	7/18/2022	10/21/2022	2/24/2023
36189	L0006A		109830	7/15/2022	1/10/2023	7/18/2022	11/7/2022	2/24/2023
36190	L0006A		149930	7/15/2022	1/10/2023	7/18/2022	11/3/2022	2/24/2023
36191	L0006A		155400	7/14/2022	7/14/2023	7/18/2022	FR	FR
36192	L0006A		249190	7/15/2022	1/10/2023	7/18/2022	1/10/2023	2/24/2023
36193	L0006A		250670	7/15/2022	1/10/2023	7/18/2022	1/7/2023	2/24/2023
36194	L0006A		273430	7/15/2022	1/10/2023	7/18/2022	12/17/2022	2/24/2023
36195	L0006A		278260	7/15/2022	1/10/2023	7/18/2022	11/28/2022	2/24/2023
36196	L0006A		279820	7/15/2022	1/10/2023	7/18/2022	11/2/2022	2/24/2023

PR ID	Line	Segment	Girth Weld	Date of Discovery *ODS1*	Repair / Mitigation Deadline[1] *ODS2*	PPR Imposition Date *ODS3*	Repair / Mitigation Date *ODS4*	PPR Removal Date[2] *ODS5*
36197	L0006A	[redacted]	280000	7/15/2022	1/10/2023	7/18/2022	11/1/2022	FR
36198	L0006A		289430	7/15/2022	1/10/2023	7/18/2022	12/4/2022	2/24/2023
36199	L0006A		289630	7/15/2022	1/10/2023	7/18/2022	12/8/2022	2/24/2023
36200	L0006A		292570	7/15/2022	1/10/2023	7/18/2022	12/13/2022	FR
36201	L0006A		300920	7/15/2022	1/10/2023	7/18/2022	12/10/2022	2/24/2023
36202	L0006A		301880	7/15/2022	1/10/2023	7/18/2022	12/17/2022	2/24/2023
36203	L0006A		302190	7/15/2022	1/10/2023	7/18/2022	12/5/2022	2/24/2023
36545	L0006A		162030	9/21/2022	9/21/2023	9/22/2022	FR	FR
36546	L0006A		290160	9/21/2022	3/20/2023	9/22/2022	12/18/2022	FR
36547	L0006A		291850	9/21/2022	3/20/2023	9/22/2022	12/17/2022	2/24/2023
36548	L0006A		299680	9/21/2022	3/20/2023	9/22/2022	12/13/2022	2/24/2023
36549	L0006A		309410	9/21/2022	3/20/2023	9/22/2022	1/30/2023	FR
36921	L0006A		204410	11/15/2022	5/15/2023	11/17/2022	FR	FR
36922	L0006A		217220	11/15/2022	5/15/2023	11/17/2022	2/10/2023	FR
36923	L0006A		233560	11/15/2022	5/15/2023	11/17/2022	FR	FR
36924	L0006A		269560	11/15/2022	5/15/2023	11/17/2022	FR	FR
36245	L0006A		45130	8/4/2022	8/4/2023	8/5/2022	FR	FR
36246	L0006A		57830	8/4/2022	8/4/2023	8/5/2022	10/3/2022	12/19/2022
36247	L0006A		64570	8/4/2022	8/4/2023	8/5/2022	FR	FR
36248	L0006A		64830	8/4/2022	8/4/2023	8/5/2022	FR	FR
36249	L0006A		101870	8/4/2022	1/31/2023	8/5/2022	1/30/2023	FR
36250	L0006A		123920	8/4/2022	1/31/2023	8/5/2022	10/17/2022	12/19/2022
36251	L0006A		160140	8/4/2022	1/31/2023	8/5/2022	10/21/2022	12/19/2022
36252	L0006A		165590	8/4/2022	8/4/2023	8/5/2022	12/3/2022	FR
36253	L0006A		169990	8/4/2022	8/4/2023	8/5/2022	2/15/2023	FR
36254	L0006A		174660	8/4/2022	1/31/2023	8/5/2022	10/31/2022	12/19/2022
36255	L0006A		178850	8/4/2022	8/4/2023	8/5/2022	12/18/2022	FR
36256	L0006A		184960	8/4/2022	1/31/2023	8/5/2022	1/18/2023	FR
36257	L0006A		185580	8/4/2022	8/4/2023	8/5/2022	2/17/2023	FR
36258	L0006A		187800	8/4/2022	1/31/2023	8/5/2022	1/27/2023	FR
36259	L0006A		187850	8/4/2022	1/31/2023	8/5/2022	1/30/2023	FR
36260	L0006A		188020	8/4/2022	1/31/2023	8/5/2022	1/23/2023	FR

Table D-20: P. 46.b, d PPRs								
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** *ODS1*	**Repair / Mitigation Deadline**[1] *ODS2*	**PPR Imposition Date** *ODS3*	**Repair / Mitigation Date** *ODS4*	**PPR Removal Date**[2] *ODS5*
36261	L0006A	[redacted]	189830	8/4/2022	8/4/2023	8/5/2022	FR	FR
36262	L0006A		196210	8/4/2022	8/4/2023	8/5/2022	FR	FR
36263	L0006A		200170	8/4/2022	8/4/2023	8/5/2022	12/18/2022	FR
36264	L0006A		216570	8/4/2022	8/4/2023	8/5/2022	11/1/2022	12/19/2022
36265	L0006A		220620	8/4/2022	8/4/2023	8/5/2022	10/19/2022	12/19/2022
36266	L0006A		221100	8/4/2022	8/4/2023	8/5/2022	10/25/2022	12/19/2022
36267	L0006A		222010	8/4/2022	8/4/2023	8/5/2022	11/2/2022	12/19/2022
36268	L0006A		225660	8/4/2022	8/4/2023	8/5/2022	12/19/2022	FR
36269	L0006A		225780	8/4/2022	8/4/2023	8/5/2022	12/15/2022	FR
36270	L0006A		230000	8/4/2022	8/4/2023	8/5/2022	FR	FR
36271	L0006A		247400	8/4/2022	1/31/2023	8/5/2022	10/28/2022	12/19/2022

TABLE NOTES:

[1] Repair/Mitigation Deadline was specified in Tables 1 to 5 of the Consent Decree

ODS1 Date of Discovery: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"

ODS2 Repair/Mitigation Deadline: eDig Report - Power BI Dashboard

ODS3 PPR Imposition Date: PPR Report

ODS4 Repair / Mitigation Deadline: eDig Report - Power BI Dashboard

ODS5 PPR Removal Date: PPR Report

"FR" indicates that this information is outside the reporting period of this SIPTUR2

The following 1 page is Table D-21: P. 46.e Alternate Plans and Alternate Pressure Restrictions.

Table D-21: P. 46.e Alternate Plans and Alternate Pressure Restrictions	
46.e. Alternate Plan or Alternate Interim Pressure Restrictions submitted from effective date to the end of this SIPTUR1 reporting period:	16 of maximum 40
46.e. Cumulative Excavations of Joints	16 of maximum 200
46.e. Maximum number of contiguous joints for each Alternate Plans or Alternate Interim Pressure Restriction	1 of maximum 10

The following 1 page is Table D-24: P. 47 Crack Features Requiring Excavation.

Table D-24: P. 47 Crack Features Requiring Excavation						
Dig ID	**Line**	**Segment**	**Girth Weld**	**Date Features Added to Dig List**	**Repair/Mitigation Deadline** [ODS1]	**Date of Repair/Mitigation**[ODS2]
32161	L0005	[redacted]	49760	11/21/2022	5/19/2023	FR
32162	L0005		84700	11/21/2022	5/19/2023	FR
32164	L0005		101830	11/21/2022	11/20/2023	FR
32166	L0005		137380	11/21/2022	11/20/2023	FR
32167	L0005		175960	11/21/2022	11/20/2023	FR
32065	L0005		51170	11/16/2022	5/15/2023	2/10/2023
32066	L0005		59470	11/16/2022	11/16/2023	FR
32067	L0005		83660	11/16/2022	5/15/2023	2/9/2023
32071	L0005		197890	11/16/2022	5/15/2023	2/1/2023
32072	L0005		217650	11/16/2022	5/15/2023	1/24/2023
32051	L0006A		204410	11/15/2022	5/15/2023	FR
32052	L0006A		217220	11/15/2022	5/15/2023	2/10/2023
32053	L0006A		233560	11/15/2022	5/15/2023	FR
32054	L0006A		269560	11/15/2022	5/15/2023	FR
32056	L0006A		305490	11/15/2022	11/15/2023	FR

TABLE NOTES:

[ODS1] *Repair/Mitigation Deadline: eDig Report – Power BI Dashboard*

[ODS2] *Date of Repair / Mitigation: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d*

"FR" indicates that this information is outside the reporting period of this SIPTUR2

The following 1 page is Table D-25: P. 47 Crack Feature Pressure Restrictions.

Table D-25: P. 47 Crack Feature Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** ODS1	**Repair/Mitigation Deadline (Specified in Tables 1 to 5 of the Consent Decree)**	**PPR Set (psi)** ODS2	**PPR Imposition Date** ODS3	**Repair/Mitigation Date** ODS4	**PPR Removal Date**[1] ODS5
40963	L0005	[redacted]	49760	11/21/2022	5/19/2023	762	11/22/2022	FR	FR
40964	L0005		84700	11/21/2022	5/19/2023	680	11/22/2022	FR	FR
40965	L0005		175960	11/21/2022	11/20/2023	597	11/22/2022	FR	FR
36938	L0005		16040	11/16/2022	5/15/2023	836	11/18/2022	FR	FR
36939	L0005		51170	11/16/2022	5/15/2023	696	11/18/2022	2/10/2023	FR
36940	L0005		83660	11/16/2022	5/15/2023	689	11/18/2022	2/9/2023	FR
36943	L0005		197890	11/16/2022	5/15/2023	685	11/18/2022	2/1/2023	FR
36944	L0005		217650	11/16/2022	5/15/2023	698	11/18/2022	1/24/2023	2/13/2023
36921	L0006A		204410	11/15/2022	5/15/2023	544	11/17/2022	FR	FR
36922	L0006A		217220	11/15/2022	5/15/2023	601	11/17/2022	2/10/2023	FR
36923	L0006A		233560	11/15/2022	5/15/2023	609	11/17/2022	FR	FR
36924	L0006A		269560	11/15/2022	5/15/2023	609	11/17/2022	FR	FR

TABLE NOTES:

[1]Repair/ Mitigation Deadline was specified in Tables 1 to 5 of the Consent Decree

ODS1 Date of Discovery: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"

ODS2 Repair / Mitigation Deadline: eDig Report - Power BI Dashboard

ODS3 PPR Set (psi): PPR Report

ODS4 PPR Imposition Date: PPR Report

ODS5 PPR Removal Date: PPR Report

"FR" indicates that this information is outside the reporting period of this SIPTUR2

The following 2 pages are the D-26: P. 50 Corrosion Features Requiring Excavation.

Table D-26: P. 50 Corrosion Features Requiring Excavation						
Dig ID	**Line**	**Segment**	**Girth Weld**	**Date Features Added to Dig List**	**Repair / Mitigation Deadline** ODS1	**Date of Repair / Mitigation**[1], ODS2
32385	L0002	[redacted]	158360	2/16/2023	8/15/2023	FR
31472	L0006A		18190	7/14/2022	7/14/2023	FR
31475	L0006A		74790	7/14/2022	7/14/2023	2/14/2023
31476	L0006A		80630	7/14/2022	7/14/2023	FR
31477	L0006A		92550	7/14/2022	7/14/2023	FR
31478	L0006A		95950	7/14/2022	7/14/2023	FR
31479	L0006A		96300	7/14/2022	7/14/2023	FR
31480	L0006A		96310	7/14/2022	7/14/2023	FR
31481	L0006A		127040	7/14/2022	7/14/2023	FR
31482	L0006A		137980	7/14/2022	7/14/2023	FR
31483	L0006A		155400	7/14/2022	7/14/2023	FR
31484	L0006A		174640	7/14/2022	7/14/2023	FR
31485	L0006A		256721	7/14/2022	7/14/2023	FR
31486	L0006A		257540	7/14/2022	7/14/2023	FR
31487	L0006A		289800	7/14/2022	7/14/2023	12/16/2022
31488	L0006A		297480	7/14/2022	7/14/2023	FR
31491	L0006A		299720	7/14/2022	7/14/2023	12/6/2022
31494	L0006A		303050	7/14/2022	7/14/2023	FR
31496	L0006A		309480	7/14/2022	7/14/2023	1/28/2023
31499	L0006A		82500	7/15/2022	1/10/2023	12/21/2022
31500	L0006A		88260	7/15/2022	1/10/2023	12/15/2022
31507	L0006A		249190	7/15/2022	1/10/2023	1/10/2023
31508	L0006A		250670	7/15/2022	1/10/2023	1/7/2023
31509	L0006A		273430	7/15/2022	1/10/2023	12/17/2022
31514	L0006A		280790	7/15/2022	1/10/2023	12/20/2022
31515	L0006A		289430	7/15/2022	1/10/2023	12/4/2022
31516	L0006A		289630	7/15/2022	1/10/2023	12/8/2022
31517	L0006A		292570	7/15/2022	1/10/2023	12/13/2022
31519	L0006A		297120	7/15/2022	1/10/2023	12/5/2022
31520	L0006A		297910	7/15/2022	1/10/2023	12/5/2022
31522	L0006A		300920	7/15/2022	1/10/2023	12/10/2022
31523	L0006A		301880	7/15/2022	1/10/2023	12/17/2022
31524	L0006A		302160	7/15/2022	1/10/2023	12/4/2022

Table D-26: P. 50 Corrosion Features Requiring Excavation						
Dig ID	**Line**	**Segment**	**Girth Weld**	**Date Features Added to Dig List**	**Repair / Mitigation Deadline** ODS1	**Date of Repair / Mitigation**[1], ODS2
31525	L0006A	[redacted]	302190	7/15/2022	1/10/2023	12/5/2022
31527	L0006A		310450	7/15/2022	1/10/2023	1/10/2023
31528	L0006A		310810	7/15/2022	1/10/2023	12/17/2022
31776	L0006A		162030	9/21/2022	9/21/2023	FR
31778	L0006A		290160	9/21/2022	3/20/2023	12/18/2022
31779	L0006A		291850	9/21/2022	3/20/2023	12/17/2022
31781	L0006A		299680	9/21/2022	3/20/2023	12/13/2022
31782	L0006A		309410	9/21/2022	3/20/2023	1/30/2023
31593	L0006A		45130	8/4/2022	8/4/2023	FR
31594	L0006A		45390	8/4/2022	8/4/2023	FR
31596	L0006A		64570	8/4/2022	8/4/2023	FR
31597	L0006A		64830	8/4/2022	8/4/2023	FR
31598	L0006A		101870	8/4/2022	1/31/2023	1/30/2023
31602	L0006A		165590	8/4/2022	8/4/2023	12/3/2022
31603	L0006A		169990	8/4/2022	8/4/2023	2/15/2023
31605	L0006A		178850	8/4/2022	8/4/2023	12/18/2022
31606	L0006A		184960	8/4/2022	1/31/2023	1/18/2023
31607	L0006A		185580	8/4/2022	8/4/2023	2/17/2023
31608	L0006A		187800	8/4/2022	1/31/2023	1/27/2023
31609	L0006A		187850	8/4/2022	1/31/2023	1/30/2023
31610	L0006A		188020	8/4/2022	1/31/2023	1/23/2023
31611	L0006A		189830	8/4/2022	8/4/2023	FR
31612	L0006A		190480	8/4/2022	8/4/2023	FR
31613	L0006A		196210	8/4/2022	8/4/2023	FR
31614	L0006A		200170	8/4/2022	8/4/2023	12/18/2022
31619	L0006A		225660	8/4/2022	8/4/2023	12/19/2022
31620	L0006A		225780	8/4/2022	8/4/2023	12/15/2022
31621	L0006A		225860	8/4/2022	8/4/2023	FR
31622	L0006A		230000	8/4/2022	8/4/2023	FR

TABLE NOTES:

[1] *"FR" indicates that this information is outside the reporting period of this SIPTUR1*

ODS1 *Repair/Mitigation Deadline: eDig Report – Power BI Dashboard*

ODS2 *Date of Repair / Mitigation: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d*

The following 3 pages are Table D-27: P. 52 Corrosion Feature Pressure Restrictions.

Table D-27: P. 52 Corrosion Feature Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** *ODS1*	**Repair / Mitigation Deadline[1]** *ODS2*	**PPR Set (psi)** *ODS3*	**PPR Imposition Date** *ODS4*	**Repair / Mitigation Date** *ODS5*	**PPR Removal Date[2]** *ODS6*
36178	L0006A	[redacted]	18190	7/14/2022	7/14/2023	614	7/18/2022	FR	FR
36179	L0006A		73870	7/15/2022	1/10/2023	616	7/18/2022	10/27/2022	12/19/2022
36180	L0006A		73930	7/14/2022	7/14/2023	581	7/18/2022	10/27/2022	2/17/2023
36181	L0006A		74040	7/14/2022	7/14/2023	613	7/18/2022	10/28/2022	2/24/2023
36182	L0006A		80630	7/14/2022	7/14/2023	591	7/18/2022	FR	FR
36183	L0006A		82500	7/15/2022	1/10/2023	602	7/18/2022	12/21/2022	2/24/2023
36184	L0006A		88260	7/15/2022	1/10/2023	616	7/18/2022	12/15/2022	2/24/2023
36185	L0006A		95950	7/14/2022	7/14/2023	597	7/18/2022	FR	FR
36186	L0006A		96300	7/14/2022	7/14/2023	586	7/18/2022	FR	FR
36187	L0006A		96310	7/14/2022	7/14/2023	574	7/18/2022	FR	FR
36188	L0006A		100120	7/15/2022	1/10/2023	614	7/18/2022	10/21/2022	2/24/2023
36189	L0006A		109830	7/15/2022	1/10/2023	606	7/18/2022	11/7/2022	2/24/2023
36190	L0006A		149930	7/15/2022	1/10/2023	617	7/18/2022	11/3/2022	2/24/2023
36191	L0006A		155400	7/14/2022	7/14/2023	614	7/18/2022	FR	FR
36192	L0006A		249190	7/15/2022	1/10/2023	606	7/18/2022	1/10/2023	2/24/2023
36193	L0006A		250670	7/15/2022	1/10/2023	609	7/18/2022	1/7/2023	2/24/2023
36194	L0006A		273430	7/15/2022	1/10/2023	617	7/18/2022	12/17/2022	2/24/2023
36195	L0006A		278260	7/15/2022	1/10/2023	616	7/18/2022	11/28/2022	2/24/2023
36196	L0006A		279820	7/15/2022	1/10/2023	605	7/18/2022	11/2/2022	2/24/2023
36197	L0006A		280000	7/15/2022	1/10/2023	602	7/18/2022	11/1/2022	FR
36198	L0006A		289430	7/15/2022	1/10/2023	614	7/18/2022	12/4/2022	2/24/2023
36199	L0006A		289630	7/15/2022	1/10/2023	611	7/18/2022	12/8/2022	2/24/2023

Table D-27: P. 52 Corrosion Feature Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** *ODS1*	**Repair / Mitigation Deadline[1]** *ODS2*	**PPR Set (psi)** *ODS3*	**PPR Imposition Date** *ODS4*	**Repair / Mitigation Date** *ODS5*	**PPR Removal Date[2]** *ODS6*
36200	L0006A	[redacted]	292570	7/15/2022	1/10/2023	605	7/18/2022	12/13/2022	FR
36201	L0006A		300920	7/15/2022	1/10/2023	614	7/18/2022	12/10/2022	2/24/2023
36202	L0006A		301880	7/15/2022	1/10/2023	612	7/18/2022	12/17/2022	2/24/2023
36203	L0006A		302190	7/15/2022	1/10/2023	599	7/18/2022	12/5/2022	2/24/2023
36545	L0006A		162030	9/21/2022	9/21/2023	606	9/22/2022	FR	FR
36546	L0006A		290160	9/21/2022	3/20/2023	609	9/22/2022	12/18/2022	FR
36547	L0006A		291850	9/21/2022	3/20/2023	615	9/22/2022	12/17/2022	2/24/2023
36548	L0006A		299680	9/21/2022	3/20/2023	595	9/22/2022	12/13/2022	2/24/2023
36549	L0006A		309410	9/21/2022	3/20/2023	590	9/22/2022	1/30/2023	FR
36245	L0006A		45130	8/4/2022	8/4/2023	616	8/5/2022	FR	FR
36246	L0006A		57830	8/4/2022	8/4/2023	616	8/5/2022	10/3/2022	12/19/2022
36247	L0006A		64570	8/4/2022	8/4/2023	599	8/5/2022	FR	FR
36248	L0006A		64830	8/4/2022	8/4/2023	617	8/5/2022	FR	FR
36249	L0006A		101870	8/4/2022	1/31/2023	596	8/5/2022	1/30/2023	FR
36250	L0006A		123920	8/4/2022	1/31/2023	608	8/5/2022	10/17/2022	12/19/2022
36251	L0006A		160140	8/4/2022	1/31/2023	617	8/5/2022	10/21/2022	12/19/2022
36252	L0006A		165590	8/4/2022	8/4/2023	610	8/5/2022	12/3/2022	FR
36253	L0006A		169990	8/4/2022	8/4/2023	608	8/5/2022	2/15/2023	FR
36254	L0006A		174660	8/4/2022	1/31/2023	604	8/5/2022	10/31/2022	12/19/2022
36255	L0006A		178850	8/4/2022	8/4/2023	608	8/5/2022	12/18/2022	FR
36256	L0006A		184960	8/4/2022	1/31/2023	604	8/5/2022	1/18/2023	FR
36257	L0006A		185580	8/4/2022	8/4/2023	600	8/5/2022	2/17/2023	FR

Table D-27: P. 52 Corrosion Feature Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** *ODS1*	**Repair / Mitigation Deadline[1]** *ODS2*	**PPR Set (psi)** *ODS3*	**PPR Imposition Date** *ODS4*	**Repair / Mitigation Date** *ODS5*	**PPR Removal Date[2]** *ODS6*
36258	L0006A	[redacted]	187800	8/4/2022	1/31/2023	588	8/5/2022	1/27/2023	FR
36259	L0006A		187850	8/4/2022	1/31/2023	586	8/5/2022	1/30/2023	FR
36260	L0006A		188020	8/4/2022	1/31/2023	560	8/5/2022	1/23/2023	FR
36261	L0006A		189830	8/4/2022	8/4/2023	592	8/5/2022	FR	FR
36262	L0006A		196210	8/4/2022	8/4/2023	595	8/5/2022	FR	FR
36263	L0006A		200170	8/4/2022	8/4/2023	593	8/5/2022	12/18/2022	FR
36264	L0006A		216570	8/4/2022	8/4/2023	601	8/5/2022	11/1/2022	12/19/2022
36265	L0006A		220620	8/4/2022	8/4/2023	610	8/5/2022	10/19/2022	12/19/2022
36266	L0006A		221100	8/4/2022	8/4/2023	594	8/5/2022	10/25/2022	12/19/2022
36267	L0006A		222010	8/4/2022	8/4/2023	615	8/5/2022	11/2/2022	12/19/2022
36268	L0006A		225660	8/4/2022	8/4/2023	591	8/5/2022	12/19/2022	FR
36269	L0006A		225780	8/4/2022	8/4/2023	610	8/5/2022	12/15/2022	FR
36270	L0006A		230000	8/4/2022	8/4/2023	617	8/5/2022	FR	FR
36271	L0006A		247400	8/4/2022	1/31/2023	607	8/5/2022	10/28/2022	12/19/2022

TABLE NOTES:

[1]Repair/ Mitigation Deadline was specified in Tables 1 to 5 of the Consent Decree

[ODS1] Date of Discovery: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"

[ODS2] Repair / Mitigation Deadline: eDig Report - Power BI Dashboard

[ODS3] PPR Set (psi): PPR Report

[ODS4] PPR Imposition Date: PPR Report

[ODS5] Repair / Mitigation Date: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d

[ODS6] PPR Removal Date: PPR Report

"FR" indicates that this information is outside the reporting period of this SIPTUR2

The following 1 page is Table D-31: P. 58 Interacting Features Requiring Excavation.

Table D-31: P. 58 Interacting Features Requiring Excavation										
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool**	**Report Received Date** *ODS1*	**One-Source Load Date**	**Date of Discovery / Feature Added to Dig List** *ODS2*	**Repair / Mitigation Deadline** *ODS3*	**Type of Inter-acting features (tool)** *ODS4*	**Date of Repair / Mitigation** *ODS5*
32069	L0005	[redacted]	190020	Crack	10/17/2022	10/17/2022	11/16/2022	1/17/2023	Dent	1/14/2023
32074	L0005		225020	Crack	10/17/2022	10/17/2022	11/16/2022	1/17/2023	Dent	1/13/2023

TABLE NOTES:

ODS1 Report Received Date: Vendor ILI Report Email

ODS2 Date of Discovery / Feature Added to Dig List: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"

ODS3 Repair / Mitigation Deadline: eDig Report - Power BI Dashboard

ODS4 Type of Inter-acting features (tool): Share Drive - Program Summary Document: Geometry: Summary of Feature Selection Features Identified Through Data Integration, Crack: Mitigation Selection (PI-38) and PI Listing Approval ILI Fitness-for-Service Evaluation and Remarks, Corrosion: Consent Decree Threat Integration Excavation Selection

ODS5 Date of Repair / Mitigation: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d

"FR" indicates that this information is outside the reporting period of this SIPTUR1

The following 1 page is Table D-32: P. 59 Interacting Features Pressure Restrictions.

Table D-32: P. 59 Interacting Features Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery** *ODS1*	**Repair / Mitigation Deadline[1]** *ODS2*	**PPR Set (psi)**	**PPR Imposition Date** *ODS3*	**Repair / Mitigation Date** *ODS4*	**PPR Removal Date[2,3]** *ODS5*
36941[1]	L0005	[redacted]	19020	11/16/2022	1/17/2023	729	11/18/2022	11/18/2022	12/20/2022
36942[2]	L0005		90020	11/16/2022	1/17/2023	656	11/18/2022	1/14/2023	2/13/2023
36945[3]	L0005		23700	11/16/2022	5/15/2023	729	11/18/2022	11/17/2022	12/20/2022
36946[4]	L0005		25020	11/16/2022	1/17/2023	656	11/18/2022	1/13/2023	2/13/2023

TABLE NOTES:

[1] AP13
[2] AP14
[3] AP15
[4] AP16
ODS1 Date of Discovery: Share Drive - Assessment Sheet – Column JB "UPLOAD TO EDIG", PI Listing (Corrosion) – Column IV "Upload to Edig"
ODS2 Repair / Mitigation Deadline: eDig Report - Power BI Dashboard
ODS3 PPR Imposition Date: PPR Report
ODS4 Repair / Mitigation Date: eDig Report - Power BI Dashboard, Added columns (NDE Assessed Date and Sleeve Post Repair Assessed Date) to report to track new interpretation dates for P40/77d
ODS5 PPR Removal Date: PPR Report
"FR" indicates that this information is outside the reporting period of this SIPTUR1

The following 1 page is Table D-33: P. 60 Remaining Life Calculations.

Table D-33: P. 60 Remaining Life Calculations					
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Remaining Life Calculation Completion Date**[ODS1]
10858	02	[redacted]	MFL4	Corrosion	2/16/2023
10888	04		DuDi UCM	Crack	12/9/2022
10905	05		UCx	Crack	12/5/2022

TABLE NOTE:

[ODS1] *Remaining Life Calculation Date: PI Listing Approval Confirmation Email – Share Drive Documentation*

The following 1 page is Table D-34: P. 63 Crack Feature Remaining Life Calculations.

Table D-34: P. 63 Crack Feature Remaining Life Calculations					
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Remaining Life Calculation Completion Date** [ODS1]
10888	04	[redacted]	DuDi UCM	Crack	12/9/2022
10905	05		UCx	Crack	12/5/2022

TABLE NOTE:

[ODS1] *Remaining Life Calculation Date: PI Listing Approval Confirmation Email – Share Drive Documentation*

Section E

There are no tables associated with Section E.

Section F

The following 1 page is Table F-1: P. 77 OneSource NDE Updates.

Section F

Table F-1: P. 77 OneSource NDE Updates						
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Last NDE Report Approved Date[1,2]**	**OneSource Load Date[ODS1]**
6742	L0014	[redacted]	ECLIPSE	Crack	12/23/2022	1/2/2023

TABLE NOTE:

[1] The last NDE report approved date was the date the last CD FRE NDE report for that particular ILI program was approved.

[2] There may be instances where an NDE report reissue is required to correct clerical issues. In these instances, the Last NDE Report Approved Date is the approval date of the Initial NDE report.

[ODS1] OneSource Load Date: OneSource - BICONSENTDECREE NDEAssessment_V - NDEDataChangedDate

The following 1 page is Table F-2: P. 78.a OneSource ILI Updates.

Table F-2: P. 78.a OneSource ILI Updates						
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Report Received Date**	**OneSource Upload Date** *ODS1*
10858	02	[redacted]	MFL4	Corrosion	1/18/2023	1/23/2023
10858	02		MFL4	Geometry	1/18/2023	1/23/2023
11206	64		GEMINI	Corrosion	3/1/2023	3/1/2023
11206	64		GEMINI	Geometry	3/1/2023	3/1/2023
10969	78		MFL4	Corrosion	2/10/2023	2/13/2023
10969	78		MFL4	Geometry	2/10/2023	2/13/2023

TABLE NOTE:

ODS1 OneSource Upload Date: OneSource - BICONSENTDECREE ILIReportIssues_V - OneSourceLoadDate

The following 1 page is Table F-3: P. 78.b Interacting Feature Reviews.

Table F-3: P. 78.b Interacting Feature Reviews									
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Pull Date**	**Report Received Date**	**Interacting Feature Review**	**SQuAD and QuAD Completion Date**	**Issue #**
10858	02	[redacted]	MFL4	Corrosion	10/20/2022	1/18/2023	2/16/2023	2/16/2023	1
10858	02		MFL4	Geometry	10/20/2022	1/18/2023	2/7/2023	2/7/2023	1
10888	04		DuDi UCM	Crack	7/20/2022	11/17/2022	12/9/2022	N/A[1]	1
10905	05		UCx	Crack	7/13/2022	11/10/2022	12/5/2022	N/A[1]	1

TABLE NOTE:

[1] SQuAD/QuAD is not applicable to the crack program

Section G

The following 1 page is Table G-1: P. 93-94, 96-97 Temporary MBS Suspension.

Section G

Table G-1: P. 93-94, 96-97 Temporary MBS Suspension			
Reason for Instrumentation Outage	**Time Period to Restore MBS Segment to Operation (Requirement)**	**Number of Occurrences**	**Number of Occurrences Exceeding Time Period**
Instrumentation failure	10 days	4	0
Bypass of ILI Tool	4 hours	3	0
Scheduled maintenance or repairs	4 days	6	0

The following 1 page is Table G-2: P. 99 Projects.

Table G-2: P. 99 Projects				
Line	**Milepost**	**Valve Tag No.**	**Installation Date**	**Triggers Paragraph 99?**
14	455	G455.67-14-BV-1	Dec 2022	Yes. PT and TT were installed on the downstream side where the valve was exposed.
5	1732	E1732.71-5-V-1	Jan 2023	Yes. TT was installed upstream of valve. No other devices required since upstream PT was already available at Marysville and downstream devices were added to upstream side of valve 1735.

The following 1 page is Table G-3: P. 112 Lakehead System Pipeline Incident Reporting.

Table G-3: P. 112 Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**			**Investigation**	**Lakehead Lines Affected**
[redacted]	12/30/2022 14:56 MST	12/30/2022 15:02 MST	12/30/2022 15:08 MST	[redacted]	[redacted]	Line 78
[redacted]	01/12/2023 06:20 MST	01/12/2023 06:26 MST	01/12/2023 06:29 MST	[redacted]	[redacted]	Line 78

Section H

There are no tables associated with Section H.

Section I

There are no tables associated with Section I.

Section J

There are no tables associated with Section J.

Section IX

The following 1 page is Table IX-1: P. 144 Problems Anticipated, Consent Decree Interpretation Issues in Discussion by the Parties.

Section IX

Table IX-1: P. 144 Problems Anticipated, Consent Decree Interpretation Issues in Discussion by the Parties		
Section and Title	**Relevant Paragraph or Reference**	**Enbridge Position**
NA		

The following 1 page is Table IX-2: P. 145 List of Potential Non-Compliances.

Table IX-2: P. 145 List of Potential Non-Compliances	
Potential Non-Compliance	**Summary Location**
NA in this reporting period	Section IX – Paragraph 145

The following 1 page is Table IX-3: P. 146 Discharges from a Lakehead System Pipeline.

Table IX-3: P. 146 Discharges from a Lakehead System Pipeline	
Spill Date (MM/DD/YYYY)	NA[1]
National Response Center #	
Spill Location	
MP#/Facility Name	
Equipment or Line Number	
Cause of spill	
Spill Material	
Quantity of Spill	
Distance Spill Travelled	
Sheen, Sludge or Emulsion Observed	
Name of Water that Spill Entered (if applicable)	
Water Quality Standard Exceeded/Violated	
Actions Taken or Planned to Address Spill	
Actions Taken or Planned to Prevent Future Spills and Schedule for Future Actions	
Environmental Impacts from Spill	
Root Cause	

TABLE NOTES:

[1] *There were no discharges of one or more barrels of oil or any that reached a waterbody that occurred during the reporting period for this report.*

The following 1 page is Table IX-4: P. 147 Update on Discharges from a Lakehead System Facility.

Table IX-4: P. 147 Update on Discharges from a Lakehead System Facility	
Spill Date (MM/DD/YYYY)	11/05/2022
National Response Center #	1351798
Spill Location	Livingston, Pontiac, IL
MP#/Facility Name	Flanagan Terminal[1]
Equipment or Line Number	61-VV-11
Cause of spill	Other Accident Cause
Spill Material	Crude Oil
Quantity of Spill	50 Barrels
Distance Spill Travelled	Product travelled 5 feet from release site. Due to 40 MPH winds, product mist travelled a quarter mile.
Sheen, Sludge or Emulsion Observed	Sheen on road and ditch due to product mist.
Name of Water that Spill Entered (if applicable)	Not Applicable
Water Quality Standard Exceeded/Violated	Not Applicable
Actions Taken or Planned to Address Spill	Line 61 was already shut down prior to the release due to a power failure. ICS was stood up and OSRO contractors were mobilized to the site to commence the cleanup. The failed needle valve and the associated stainless tubing on the valve body was replaced and the line was returned to service.
Actions Taken or Planned to Prevent Future Spills and Schedule for Future Actions	Actions plans are pending the results of the failure analysis and investigation to determine the root cause.
Final Actions Taken or Planned to Prevent Future Spills and Schedule for Future Actions	*No Change*
Environmental Impacts from Spill	Soil
Preliminary Root Cause	Unknown, Under Investigation
Final Root Cause	*No Change*

TABLE NOTE:

[1] *Not a CD-reportable event but disclosed for reporting consistency with previous SARs.*

[2] *Updates to the discharges reported in IPTUR are italicized.*

Appendix 2 – Lakehead Leak Alarm Report [108,110,111]

Reporting Period: December 3, 2022 to March 2, 2023

Lakehead Leak Alarm Reports

- Summary of Alarms (SOA)
- Record of Alarms (ROA)
- Weekly List of Alarms (WLOA)
- Instrumentation Outage Report

Prepared by Pipeline Control

On March 15, 2023

For reporting period December 3, 2022 to March 2, 2023

Purpose of the Document

The following sections present four (4) reports from section **VII.G. LEAK DETECTION AND CONTROL ROOM OPERATIONS** of the Consent Decree.

The first three reports are for subsection **VII.G.V. Leak Detection Requirements for Control Room** of the decree. They list production MBS Leak Detection System (MBS) and Rupture Detection System (RDS) alarms in the Lakehead System:

1. The summary of alarms (“SOA”) lists the total number of Alarms per pipeline and states whether or not Enbridge complied with the 10-Minute Rule in responding to Alarms. With respect to each non-compliance, it provides a reference to the post incident report which states the reason for the non-compliance and identifies the corrective action, if any, taken to prevent a recurrence of the non-compliance.
2. The record of alarms (“ROA”) documents Unscheduled Shutdowns due to Alarms. Each record indicates an instance when the pipeline was shutdown with critical facts relating to the Alarm.
3. The weekly list of alarms (“WLOA”) include Alarms broken down by pipeline, the type of Alarm, the total number of Alarms for the reporting period, the date of the Alarm, the time at which it began, and the time when the Alarm was cleared.

The fourth report is for subsection **VII.G.IV. Leak Detection Requirements for Pipelines** within the Lakehead System of the decree. The report lists instances when the outage exceeded time periods set forth in paragraph VII.G.IV.97 of the decree.

4. The instrumentation outage report documents two of the three "Reason for Instrumentation Outage" listed in paragraph VII.G.IV.97 of the decree:
    - *Instrumentation Failure*
    - *Scheduled Maintenance or repairs*
    - *Bypass ILI Tool* is documented separately.

Timestamps in the reports are in 24-hour Mountain Standard Time format.

For specific detailed requirements of the reports, please to refer to the Consent Decree.

Terms of Reference

Terms of Reference Table: Special Terms and Reference from the Consent Decree

The following section define terms copied from the Consent Decree for convenience. Please refer to the Consent Decree in case of any discrepancies.

Consent Decree Reference	Term	Definition
IV.10.dd	Lakehead System	The portion of the Mainline System within the United States that is comprised of fourteen pipelines – Lines 1, 2B, 3, 4, 5, 6A, 6B, 10, 14, 61, 62, 64, 65, and 67 – and all New Lakehead Pipelines. *Note: Line 6B has been renamed to Line 78. 6B and 78 are equivalent and the same pipeline.*
IV.10.ii	Material Balance System or MBS Leak Detection System	The computational pipeline monitoring system used by Enbridge to detect leaks or ruptures in the Lakehead System.
IV.10.ggg	Shutdown	The operational period between (1) the initial cessation of pumping operations in a pipeline, or section of pipeline, through which oil has been actively flowing and (2) the point where the flow rate within the pipeline, or section of pipeline, is zero.
IV.10.iii	Startup	The operational period between (1) the commencement of pumping operations in a pipeline that had been previously shut down and (2) the point where oil in the pipeline achieves a Steady State.
VII.G.V.105	Alarm Response Team: CRO, LDA, STA	All Alarms shall be addressed by an Alarm Response Team, which shall be composed of the following individuals in the Control Room at the time that the Alarm occurs: 1. the Control Room operator (“CRO”) who is responsible for the pipeline that generates the alarm, 2. the leak detection analyst (“LD Analyst”), and 3. the senior technical advisor for that pipeline.

Terms of Reference Table: Special Terms referenced in these reports.

The following section define terms used by Enbridge for the purpose of these reports.

Consent Decree Reference	Term	Definition
VII.G.V.104	Alarm or Alarms	Alarm and Alarming Event are equivalent in these reports. An Alarming Event is an event with a single root cause but can generate one or more alarms. Enbridge documents alarms as events. In order to align with the information requested by the Consent Decree (such as root cause), Alarming Events are reported.
VII.G.V.108	Alarm Clearance	Alarm Clearance is the act of investigating whether an Alarm is truly a potential leak or a false alarm. The alarm clearance is a procedural act and not to be confused with the alarm status which is the binary state of in alarm state (ALM, often “1”) or returned to normal (RTN, often “0”).

I certify that for this reporting period, the information contained in the SOA, WLOA, and ROAs, is true and accurate, and Enbridge has complied with the 10-Minute Rule and other requirements of Subsection VII.G.(V).

Vice President, Pipeline Control

[redacted] [redacted] [redacted]

Name Signature Date

1. Summary of Alarms (“SOA”)

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 1a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline
Total Alarms	Total number of alarming events for reporting period
Total Non-Compliance	**(Alarming)** Number of times Enbridge did not comply with the 10-Minute Rule in responding to Alarms **(Non-Alarming)** Number of times Enbridge did not comply with the 10-Minute Rule in responding to potential leak or rupture from a source other than an Alarm
Reasons and Corrective Actions for each Non-Compliance	Reference to the Post Incident Report describing reason for the non-compliance and the corrective action, if any, taken to prevent a reoccurrence of the non-compliance. An empty reference indicates either zero non-compliance to the 10-minute rule or the Post Incident Report is not yet generated.

Table 1b: Summary of Alarms (Reporting Period: December 3, 2022 to March 2, 2023)

Pipeline	Total Alarms	Total Non-Compliance (Alarming)	Total Non-Compliance (Non-Alarming)	Reasons and Corrective Actions for each Non-Compliance
00	0	0	0	
01	1	0	0	
02	5	0	0	
03	0	0	0	
04	14	0	0	
05	13	0	0	
06A	9	0	0	
10	14	0	0	
14	11	0	0	
64	0	0	0	

Pipeline	Total Alarms	Total Non-Compliance (Alarming)	Total Non-Compliance (Non-Alarming)	Reasons and Corrective Actions for each Non-Compliance
65	3	0	0	
67	0	0	0	
78	2	0	0	

2. Record of Alarm (“ROA”)

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 2a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline.
Alarming Event Start Time	Start of the Alarming Event that caused the alarm(s) to trigger. It is always the receipt time of the earliest alarm in an Alarming Event.
Alarm Received Time	Time that the alarm was received for each individual alarm within the Alarming Event. Each alarm is simultaneously received by all members of the alarm response team.
Alarm Assessed Time	Time that the alarm was assessed for each individual alarm within the Alarming Event. Each alarm is assessed by each independent member of the alarm response team; an alarm is considered assessed when all members of the alarm response team has assessed.
Root Cause	Cause and classification of the Alarm. An empty field indicates the root cause has not yet been documented.
CRO and STA Actions	Procedures executed by the control room operator (OP) and the senior technical advisor (STA) which define the positions (i.e. role) of the Alarm Recipients, the actions (or inactions) of the Alarm Response Team, and each fact considered in determining the cause of the Alarm. An empty field indicates the actions or procedures have not yet been documented.

Table 2a: Description of fields in this Report

LDA Actions	Procedures executed by the leak detection analyst (LDA) which define the positions (i.e. role) of the Alarm Recipients, the actions (or inactions) of the Alarm Response Team, and each fact considered in determining the cause of the Alarm. An empty field indicates the actions or procedures have not yet been documented.
Shutdown Commenced	Time the Unscheduled Shutdown commenced. An empty time indicates the Shutdown Commenced has not yet been documented.
Shutdown Completed	Time the Unscheduled Shutdown completed. An empty time indicates the Shutdown Completed has not yet been documented.
Justification for Resumption	Justification for resumption of pumping operations. An empty field indicates the Justification for Resumption has not yet been documented.
Startup Commenced	Time that pumping operations resumed. An empty time indicates the Startup Commenced has not yet been documented.
Were Procedures Followed	Certification of compliance with 10-Minute Rule. An empty field indicates the certification of compliance has not yet been documented.
Post Incident Report	Reference of Post-Incident Report if not in compliance with the 10-Minute Rule. An empty reference indicates the Post Incident Report is not needed or has not yet been documented.

Table 2b: Record of Alarm

Pipeline	02
Alarming Event Start Time	2023-02-04 15:51:17
MBS Alarm Received Time **MBS Alarm Assessed Time**	2023-02-04 15:51:18 2023-02-04 17:50:37
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-04 16:01:45* *Each alarm was assessed individually to rule out the possibility of a leak within 10 minutes of the first alarm. Shutdown was commenced immediately, not to exceed 60 seconds upon completion of the 10-minute timer. This is in accordance with the Ten-Minute Rule as explained to the ITP on Sept 2017 and Jan 2018.
Shutdown Completed	2023-02-04 16:24:51
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2023-02-04 19:31:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	04
Alarming Event Start Time	2022-12-07 04:09:47
MBS Alarm Received Time **MBS Alarm Assessed Time**	2022-12-07 04:09:47 2022-12-07 04:15:06
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2022-12-07 04:01:09 * * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2022-12-07 04:32:39
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2022-12-07 08:37:16
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	04
Alarming Event Start Time	2022-12-12 13:49:51
MBS Alarm Received Time **MBS Alarm Assessed Time**	2022-12-12 13:49:51 2022-12-12 13:55:21
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2022-12-12 13:46:46 * * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2022-12-12 13:49:48
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2022-12-12 17:11:59
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 01:46:37
MBS Alarm Received Time **MBS Alarm Assessed Time**	2023-02-23 01:46:37 2023-02-23 01:58:33
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-23 01:56:49 * *Each alarm was assessed individually to rule out the possibility of a leak within 10 minutes of the first alarm. Shutdown was commenced immediately, not to exceed 60 seconds upon completion of the 10-minute timer. This is in accordance with the Ten-Minute Rule as explained to the ITP on Sept 2017 and Jan 2018.
Shutdown Completed	2023-02-23 02:10:28
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers CCO investigation identified no leak triggers - Regional and CCO admin approvals granted
Startup Commenced	2023-02-23 05:00:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 04:27:12
MBS Alarm Received Time **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time**	2023-02-23 04:27:13 2023-02-23 04:37:18 2023-02-23 04:51:44 2023-02-23 05:01:27
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers
Startup Commenced	2023-02-23 05:00:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 05:01:43
AVB Alarm Received Time **AVB Alarm Assessed Time**	2023-02-23 05:01:44 2023-02-23 05:06:22
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-23 04:59:22* * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2023-02-23 05:15:57
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2023-02-23 08:06:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 07:17:15
MBS Alarm Received Time **MBS Alarm Assessed Time**	2023-02-23 07:17:16 2023-02-23 07:25:17
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers
Startup Commenced	2023-02-23 08:06:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 08:37:20
MBS Alarm Received Time **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time**	2023-02-23 08:37:21 2023-02-23 08:45:27 2023-02-23 08:38:21 2023-02-23 08:45:43 2023-02-23 08:39:21 2023-02-23 08:45:49 2023-02-23 08:42:21 2023-02-23 08:45:24
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-23 08:34:45 * * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2023-02-23 08:57:58
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers
Startup Commenced	2023-02-23 15:30:29
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	05
Alarming Event Start Time	2023-02-23 16:01:14
MBS Alarm Received Time **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time**	2023-02-23 16:01:14 2023-02-23 16:16:00 2023-02-23 16:03:14 2023-02-23 16:16:03 2023-02-23 16:04:15 2023-02-23 16:16:06 2023-02-23 16:04:44 2023-02-23 16:16:09 2023-02-23 16:06:15 2023-02-23 16:16:11 2023-02-23 16:07:44 2023-02-23 16:16:16
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-23 16:07:01
Shutdown Completed	2023-02-23 16:39:35
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers
Startup Commenced	2023-02-23 17:40:07
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	06A
Alarming Event Start Time	2022-12-24 06:32:01
MBS Alarm Received Time **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time**	2022-12-24 06:32:02 2022-12-24 06:36:54 2022-12-24 06:34:32 2022-12-24 06:36:56
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid following LDA investigation. Column separation investigated by CCO with no unexplained leak triggers
Startup Commenced	2022-12-24 11:27:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	10
Alarming Event Start Time	2022-12-31 12:35:53
MBS Alarm Received Time **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time** **MBS Alarm Received Time** **MBS Alarm Assessed Time**	2022-12-31 12:35:54 2022-12-31 13:03:46 2022-12-31 12:38:24 2022-12-31 13:03:50 2022-12-31 12:38:54 2022-12-31 13:03:54 2022-12-31 12:49:25 2022-12-31 13:04:03
Root Cause	Communication Interruption
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2022-12-31 12:34:51 * * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2022-12-31 12:59:00
JustIfIcatIon for ResumptIon	After shutdown, alarm deemed invalid following LDA investigation and CCO investigation identified no leak triggers
Startup Commenced	2022-12-31 16:00:00
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	10
Alarming Event Start Time	2023-02-09 14:17:22
MBS Alarm Received Time **MBS Alarm Assessed Time**	2023-02-09 14:17:23 2023-02-09 14:24:08
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approvals granted Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2023-02-09 16:24:01
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	14
Alarming Event Start Time	2023-02-16 04:23:51
MBS Alarm Received Time **MBS Alarm Assessed Time**	2023-02-16 04:23:52 2023-02-16 04:57:19
Root Cause	DRA Problem
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2023-02-16 04:33:49
Shutdown Completed	2023-02-16 04:52:43
Justification for Resumption	After shutdown, alarm deemed invalid following LDA investigation and CCO investigation identified no leak triggers
Startup Commenced	2023-02-16 06:45:05
Were Procedures Followed	Yes
Post Incident Report	

Pipeline	65
Alarming Event Start Time	2022-12-13 07:56:22
MBS Alarm Received TIme **MBS Alarm Assessed Time**	2022-12-13 07:56:22 2022-12-13 08:05:07
Root Cause	Communication Interruption
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - Leak Alarm
Shutdown Commenced	2022-12-13 07:51:18 * * The line was in the process of shutting down when the alarm was generated. The 'Shutdown Commenced' is the time when the shutdown was initiated.
Shutdown Completed	2022-12-13 08:16:46
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes and CCO investigation identified no additional leak triggers. Regional and CCO Admin approvals granted
Startup Commenced	2022-12-13 10:21:00
Were Procedures Followed	Yes
Post Incident Report	

3. Weekly List of Alarms (“WLOA”)

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 3a: Description of fields in this Report

Data	Description
Week	ISO 8601 week date label to identify the week in the “weekly” list of alarms.
Pipeline	Name (number) of the pipeline.
Type	Type of alarm (AVB, MBS or RDS): • AVB are 24-hour MBS alarms • MBS are 5-minute, 20-minute, or 2-hour MBS alarms • RDS are Rupture Detection System alarms
Alarming Event Start Time	Start of the Alarming Event that caused the alarm(s) to trigger. It is always the receipt time of the earliest alarm in an Alarming Event.
Alarm Received Time	Time that the alarm was received for each individual alarm within the Alarming Event. Each alarm is simultaneously received by all members of the alarm response team.
Alarm Assessed Time	Time that the alarm was assessed for each individual alarm within the Alarming Event. Each alarm is assessed by each independent member of the alarm response team; an alarm is considered assessed when all members of the alarm response team has assessed.
Alarm Cleared Time	The date and time when the Alarm was cleared. An empty time indicates the Alarm has not yet been cleared as of the printing of this report.
Shutdown Required	Indication of whether this Alarm resulted in a shutdown.

Table 3b: Weekly List of Alarms

2022 Week 48: 1 Alarming Event in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	2022-12-04 18:58:44	MBS	2022-12-04 18:58:45	2022-12-04 19:06:08	2022-12-04 19:06:08	No

2022 Week 49: 3 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	2022-12-06 09:33:43	MBS	2022-12-06 09:33:43	2022-12-06 09:39:05	2022-12-06 09:39:05	No
04	2022-12-07 04:09:47	MBS	2022-12-07 04:09:47	2022-12-07 04:15:06	2022-12-07 05:43:10	Yes
04	2022-12-07 19:36:46	MBS	2022-12-07 19:36:47	2022-12-07 19:41:16	2022-12-07 19:41:16	No

2022 Week 50: 12 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	2022-12-13 06:30:35	MBS	2022-12-13 06:30:36	2022-12-13 06:35:16	2022-12-13 06:35:16	No
		MBS	2022-12-13 06:30:36	2022-12-13 06:35:13	2022-12-13 06:35:13	
04	2022-12-12 13:49:51	MBS	2022-12-12 13:49:51	2022-12-12 13:55:21	2022-12-12 15:43:00	Yes
04	2022-12-15 00:22:31	MBS	2022-12-15 00:22:31	2022-12-15 00:30:28	2022-12-15 00:30:28	No
06A	2022-12-12 23:02:58	MBS	2022-12-12 23:02:59	2022-12-12 23:11:38	2022-12-12 23:11:38	No
		MBS	2022-12-12 23:03:59	2022-12-12 23:11:40	2022-12-12 23:11:40	
06A	2022-12-12 23:11:58	MBS	2022-12-12 23:11:59	2022-12-12 23:18:36	2022-12-12 23:18:36	No
		MBS	2022-12-12 23:12:59	2022-12-12 23:18:59	2022-12-12 23:18:59	
		MBS	2022-12-12 23:12:59	2022-12-12 23:19:34	2022-12-12 23:19:34	
		MBS	2022-12-12 23:13:59	2022-12-12 23:20:01	2022-12-12 23:20:01	
		MBS	2022-12-12 23:13:59	2022-12-12 23:20:17	2022-12-12 23:20:17	
		MBS	2022-12-12 23:15:29	2022-12-12 23:22:34	2022-12-12 23:22:34	
		MBS	2022-12-12 23:15:58	2022-12-12 23:24:36	2022-12-12 23:24:36	
		MBS	2022-12-12 23:16:29	2022-12-12 23:22:51	2022-12-12 23:22:51	
		MBS	2022-12-12 23:16:59	2022-12-12 23:25:08	2022-12-12 23:25:08	
		MBS	2022-12-12 23:17:29	2022-12-12 23:23:12	2022-12-12 23:23:12	
		MBS	2022-12-12 23:17:59	2022-12-12 23:23:22	2022-12-12 23:23:22	
06A	2022-12-15 14:16:08	MBS	2022-12-15 14:16:09	2022-12-15 14:22:42	2022-12-15 14:22:42	No
		MBS	2022-12-15 14:16:09	2022-12-15 14:22:48	2022-12-15 14:22:48	
		MBS	2022-12-15 14:16:09	2022-12-15 14:22:41	2022-12-15 14:22:41	
		MBS	2022-12-15 14:23:09	2022-12-15 14:28:25	2022-12-15 14:28:25	
14	2022-12-15 04:12:00	MBS	2022-12-15 04:12:01	2022-12-15 04:18:46	2022-12-15 04:18:46	No
14	2022-12-15 11:03:10	MBS	2022-12-15 11:03:11	2022-12-15 11:08:38	2022-12-15 11:08:38	No
		MBS	2022-12-15 11:03:11	2022-12-15 11:08:40	2022-12-15 11:08:40	
		MBS	2022-12-15 11:04:11	2022-12-15 11:08:36	2022-12-15 11:08:36	

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	2022-12-15 13:05:13	MBS	2022-12-15 13:05:14	2022-12-15 13:09:50	2022-12-15 13:09:50	No
		MBS	2022-12-15 13:05:14	2022-12-15 13:09:48	2022-12-15 13:09:48	
		MBS	2022-12-15 13:06:14	2022-12-15 13:09:46	2022-12-15 13:09:46	
		MBS	2022-12-15 13:12:13	2022-12-15 13:16:07	2022-12-15 13:16:07	
		MBS	2022-12-15 13:12:13	2022-12-15 13:16:09	2022-12-15 13:16:09	
14	2022-12-15 14:10:16	MBS	2022-12-15 14:10:16	2022-12-15 14:15:50	2022-12-15 14:15:50	No
		MBS	2022-12-15 14:10:16	2022-12-15 14:15:14	2022-12-15 14:15:14	
		MBS	2022-12-15 14:10:16	2022-12-15 14:15:17	2022-12-15 14:15:17	
		MBS	2022-12-15 14:10:16	2022-12-15 14:15:19	2022-12-15 14:15:19	
14	2022-12-16 09:18:23	MBS	2022-12-16 09:18:23	2022-12-16 09:25:27	2022-12-16 09:25:27	No
65	2022-12-13 07:56:22	MBS	2022-12-13 07:56:22	2022-12-13 08:05:07	2022-12-13 09:33:00	Yes

2022 Week 51: 7 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	2022-12-23 04:49:28	MBS	2022-12-23 04:49:29	2022-12-23 04:52:56	2022-12-23 04:52:56	No
04	2022-12-25 00:17:54	MBS	2022-12-25 00:17:55	2022-12-25 00:24:39	2022-12-25 00:24:39	No
05	2022-12-25 05:10:47	MBS	2022-12-25 05:10:48	2022-12-25 05:13:47	2022-12-25 05:13:47	No
06A	2022-12-24 06:32:01	MBS MBS	2022-12-24 06:32:02 2022-12-24 06:34:32	2022-12-24 06:36:54 2022-12-24 06:36:56	2022-12-24 06:43:35 2022-12-24 06:43:35	Yes
06A	2022-12-24 11:47:08	MBS MBS MBS	2022-12-24 11:47:09 2022-12-24 11:47:09 2022-12-24 11:50:39	2022-12-24 11:52:57 2022-12-24 11:52:59 2022-12-24 11:53:00	2022-12-24 11:52:57 2022-12-24 11:52:59 2022-12-24 11:53:00	No
06A	2022-12-25 11:11:09	MBS MBS MBS	2022-12-25 11:11:10 2022-12-25 11:16:40 2022-12-25 11:18:41	2022-12-25 11:18:35 2022-12-25 11:18:37 2022-12-25 11:20:56	2022-12-25 11:18:35 2022-12-25 11:18:37 2022-12-25 11:20:56	No
06A	2022-12-25 11:11:39	MBS MBS MBS MBS	2022-12-25 11:11:40 2022-12-25 11:11:40 2022-12-25 11:13:10 2022-12-25 11:14:10	2022-12-25 11:18:29 2022-12-25 11:18:31 2022-12-25 11:18:33 2022-12-25 11:18:35	2022-12-25 11:18:29 2022-12-25 11:18:31 2022-12-25 11:18:33 2022-12-25 11:18:35	No

2022 Week 52: 8 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	2022-12-29 20:48:54	MBS	2022-12-29 20:48:55	2022-12-29 20:54:55	2022-12-29 20:54:55	No
		MBS	2022-12-29 20:48:55	2022-12-29 20:54:57	2022-12-29 20:54:57	
05	2022-12-31 05:24:36	MBS	2022-12-31 05:24:36	2022-12-31 05:32:41	2022-12-31 05:32:41	No
06A	2022-12-27 08:23:29	MBS	2022-12-27 08:23:29	2022-12-27 08:27:01	2022-12-27 08:27:01	No
		MBS	2022-12-27 08:23:29	2022-12-27 08:26:58	2022-12-27 08:26:58	
10	2022-12-31 12:35:53	MBS	2022-12-31 12:35:54	2022-12-31 13:03:46	2022-12-31 13:07:00	Yes
		MBS	2022-12-31 12:38:24	2022-12-31 13:03:50	2022-12-31 13:07:00	
		MBS	2022-12-31 12:38:54	2022-12-31 13:03:54	2022-12-31 13:07:00	
		MBS	2022-12-31 12:49:25	2022-12-31 13:04:03	2022-12-31 13:07:00	
10	2022-12-31 16:51:02	MBS	2022-12-31 16:51:03	2022-12-31 16:54:34	2022-12-31 16:54:34	No
14	2022-12-30 22:19:53	MBS	2022-12-30 22:19:53	2022-12-30 22:26:24	2022-12-30 22:26:24	No
14	2023-01-01 08:16:32	MBS	2023-01-01 08:16:33	2023-01-01 08:23:28	2023-01-01 08:23:28	No
		MBS	2023-01-01 08:17:03	2023-01-01 08:23:30	2023-01-01 08:23:30	
		MBS	2023-01-01 08:17:33	2023-01-01 08:23:33	2023-01-01 08:23:33	
78	2022-12-28 09:11:49	MBS	2022-12-28 09:11:49	2022-12-28 09:17:21	2022-12-28 09:17:21	No
		MBS	2022-12-28 09:11:49	2022-12-28 09:17:24	2022-12-28 09:17:24	

2023 Week 01: 4 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	2023-01-06 01:52:59	MBS	2023-01-06 01:53:00	2023-01-06 01:56:06	2023-01-06 01:56:06	No
04	2023-01-06 15:18:59	MBS	2023-01-06 15:18:59	2023-01-06 15:22:28	2023-01-06 15:22:28	No
		MBS	2023-01-06 15:19:30	2023-01-06 15:22:21	2023-01-06 15:22:21	
10	2023-01-04 10:35:17	MBS	2023-01-04 10:35:17	2023-01-04 10:40:45	2023-01-04 10:40:45	No
65	2023-01-02 10:26:31	MBS	2023-01-02 10:26:32	2023-01-02 10:33:17	2023-01-02 10:33:17	No
		MBS	2023-01-02 10:43:02	2023-01-02 10:45:20	2023-01-02 10:45:20	
		MBS	2023-01-02 10:47:32	2023-01-02 10:48:08	2023-01-02 10:48:08	

2023 Week 02: 4 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	2023-01-13 08:16:21	MBS	2023-01-13 08:16:22	2023-01-13 08:20:41	2023-01-13 08:20:41	No
05	2023-01-12 21:10:24	MBS	2023-01-12 21:10:25	2023-01-12 21:16:24	2023-01-12 21:16:24	No
		MBS	2023-01-12 21:10:55	2023-01-12 21:16:26	2023-01-12 21:16:26	
14	2023-01-09 04:39:12	MBS	2023-01-09 04:39:12	2023-01-09 04:45:17	2023-01-09 04:45:17	No
65	2023-01-09 16:30:10	MBS	2023-01-09 16:30:10	2023-01-09 16:35:10	2023-01-09 16:35:10	No
		MBS	2023-01-09 16:30:10	2023-01-09 16:35:11	2023-01-09 16:35:11	
		MBS	2023-01-09 16:30:41	2023-01-09 16:35:12	2023-01-09 16:35:12	

2023 Week 03: 1 Alarming Event in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	2023-01-18 08:55:44	MBS	2023-01-18 08:55:44	2023-01-18 09:03:16	2023-01-18 09:03:16	No
		MBS	2023-01-18 08:55:44	2023-01-18 09:03:18	2023-01-18 09:03:18	

2023 Week 04: 1 Alarming Event in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
10	2023-01-26 11:10:45	MBS	2023-01-26 11:10:45	2023-01-26 11:19:53	2023-01-26 11:19:53	No

2023 Week 05: 9 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	2023-02-04 05:07:53	MBS MBS	2023-02-04 05:07:54 2023-02-04 05:07:54	2023-02-04 05:13:19 2023-02-04 05:13:17	2023-02-04 05:13:19 2023-02-04 05:13:17	No
02	2023-02-04 15:51:17	MBS	2023-02-04 15:51:18	2023-02-04 17:50:37	2023-02-04 18:06:50	Yes
04	2023-01-30 07:31:10	MBS MBS	2023-01-30 07:31:11 2023-01-30 07:31:11	2023-01-30 07:34:13 2023-01-30 07:34:11	2023-01-30 07:34:13 2023-01-30 07:34:11	No
04	2023-02-03 10:05:53	MBS	2023-02-03 10:05:53	2023-02-03 10:08:14	2023-02-03 10:08:14	No
05	2023-02-02 15:10:34	MBS	2023-02-02 15:10:34	2023-02-02 15:14:02	2023-02-02 15:14:02	No
10	2023-01-31 10:46:31	MBS	2023-01-31 10:46:32	2023-01-31 10:53:29	2023-01-31 10:53:29	No
10	2023-02-03 00:04:29	MBS MBS	2023-02-03 00:04:29 2023-02-03 17:48:31	2023-02-03 00:09:07 2023-02-03 17:50:34	2023-02-03 00:09:07 2023-02-03 17:50:34	No
10	2023-02-03 20:13:33	MBS	2023-02-03 20:13:33	2023-02-03 20:15:54	2023-02-03 20:15:54	No
78	2023-02-03 07:29:35	MBS	2023-02-03 07:29:35	2023-02-03 07:36:48	2023-02-03 07:36:48	No

2023 Week 06: 4 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	2023-02-10 17:43:55	MBS	2023-02-10 17:43:56	2023-02-10 17:48:46	2023-02-10 17:48:46	No
		MBS	2023-02-10 17:44:26	2023-02-10 17:48:47	2023-02-10 17:48:47	
		MBS	2023-02-10 17:58:26	2023-02-10 17:59:47	2023-02-10 17:59:47	
04	2023-02-08 16:50:12	MBS	2023-02-08 16:50:12	2023-02-08 16:56:37	2023-02-08 16:56:37	No
10	2023-02-09 14:17:22	MBS	2023-02-09 14:17:23	2023-02-09 14:24:08	2023-02-09 15:28:00	Yes
10	2023-02-12 05:53:33	MBS	2023-02-12 05:53:33	2023-02-12 05:57:02	2023-02-12 05:57:02	No

2023 Week 07: 7 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	2023-02-17 05:37:36	MBS	2023-02-17 05:37:37	2023-02-17 05:41:24	2023-02-17 05:41:24	No
02	2023-02-17 00:02:06	AVB	2023-02-17 00:02:06	2023-02-17 00:08:03	2023-02-17 00:08:03	No
05	2023-02-17 22:30:49	MBS	2023-02-17 22:30:49	2023-02-17 22:34:15	2023-02-17 22:34:15	No
06A	2023-02-14 08:10:02	MBS	2023-02-14 08:10:03	2023-02-14 08:15:23	2023-02-14 08:15:23	No
		MBS	2023-02-14 08:10:03	2023-02-14 08:15:28	2023-02-14 08:15:28	
		MBS	2023-02-14 08:10:33	2023-02-14 08:15:30	2023-02-14 08:15:30	
		MBS	2023-02-14 08:12:03	2023-02-14 08:15:35	2023-02-14 08:15:35	
		MBS	2023-02-14 08:14:03	2023-02-14 08:16:30	2023-02-14 08:16:30	
10	2023-02-14 15:59:10	MBS	2023-02-14 15:59:10	2023-02-14 16:04:10	2023-02-14 16:04:10	No
10	2023-02-18 11:48:58	MBS	2023-02-18 11:48:58	2023-02-18 11:50:43	2023-02-18 11:50:43	No
14	2023-02-16 04:23:51	MBS	2023-02-16 04:23:52	2023-02-16 04:57:19	2023-02-16 05:02:00	Yes

2023 Week 08: 10 Alarming Events in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	2023-02-23 01:46:37	MBS	2023-02-23 01:46:37	2023-02-23 01:58:33	2023-02-23 04:13:27	Yes
05	2023-02-23 04:27:12	MBS	2023-02-23 04:27:13	2023-02-23 04:37:18	2023-02-23 04:38:02	Yes
		MBS	2023-02-23 04:51:44	2023-02-23 05:01:27	2023-02-23 04:38:02	
05	2023-02-23 05:01:43	AVB	2023-02-23 05:01:44	2023-02-23 05:06:22	2023-02-23 07:00:13	Yes
05	2023-02-23 07:17:15	MBS	2023-02-23 07:17:16	2023-02-23 07:25:17	2023-02-23 07:38:24	Yes
05	2023-02-23 08:37:20	MBS	2023-02-23 08:37:21	2023-02-23 08:45:27	2023-02-23 13:30:15	Yes
		MBS	2023-02-23 08:38:21	2023-02-23 08:45:43	2023-02-23 13:30:15	
		MBS	2023-02-23 08:39:21	2023-02-23 08:45:49	2023-02-23 13:30:15	
		MBS	2023-02-23 08:42:21	2023-02-23 08:45:24	2023-02-23 13:30:15	
05	2023-02-23 15:51:13	MBS	2023-02-23 15:51:14	2023-02-23 15:55:25	2023-02-23 15:55:25	No
05	2023-02-23 16:01:14	MBS	2023-02-23 16:01:14	2023-02-23 16:16:00	2023-02-23 17:15:00	Yes
		MBS	2023-02-23 16:03:14	2023-02-23 16:16:03	2023-02-23 17:15:00	
		MBS	2023-02-23 16:04:15	2023-02-23 16:16:06	2023-02-23 17:15:00	
		MBS	2023-02-23 16:04:44	2023-02-23 16:16:09	2023-02-23 17:15:00	
		MBS	2023-02-23 16:06:15	2023-02-23 16:16:11	2023-02-23 17:15:00	
		MBS	2023-02-23 16:07:44	2023-02-23 16:16:16	2023-02-23 17:15:00	
05	2023-02-23 18:01:47	AVB	2023-02-23 18:01:47	2023-02-23 18:06:25	2023-02-23 18:06:25	No
10	2023-02-22 05:20:52	MBS	2023-02-22 05:20:53	2023-02-22 05:24:10	2023-02-22 05:24:10	No
10	2023-02-22 08:53:28	MBS	2023-02-22 08:53:29	2023-02-22 08:57:07	2023-02-22 08:57:07	No
		MBS	2023-02-22 15:41:10	2023-02-22 15:44:21	2023-02-22 15:44:21	
		MBS	2023-02-22 15:42:39	2023-02-22 15:44:22	2023-02-22 15:44:22	
		MBS	2023-02-22 15:43:10	2023-02-22 15:44:18	2023-02-22 15:44:18	

2023 Week 09: 1 Alarming Event in total

Pipeline	Alarming Event Start Time	Type	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
10	2023-02-28 15:45:07	MBS	2023-02-28 15:45:08	2023-02-28 15:52:44	2023-02-28 15:52:44	No

4. Instrumentation Outage Report

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 4a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline on which the instrument is located
Station	Location of the instrument
Outage Start	Date and time when the instrumentation outage began
Outage End	Date and time when the instrumentation outage was resolved
Root Cause	Reason for instrumentation outage (root cause analysis performed by the Leak Detection Analyst)

The records report instances when the outage exceeds time periods set forth in section VII.G.IV.97 of the decree.

Note Enbridge uses root cause descriptions to categorize the outage. The root cause has a finer granularity than the "Reason for Instrumentation Outage" listed in section VII.G.IV.97 of the decree, but is equivalent. The following table maps the fixed set of root causes that result in the "Reason for Instrumentation Outage" listed in section VII.G.IV.97 of the decree as well as their corresponding fixed set of actions to resolve each outage type.

Table 4b: Description of reasons for outage and actions taken to resolve it

Reason for Instrumentation Outage	Time Limit to Restore	Root Cause	Actions Taken to Resolve the Outage
Instrumentation Failure	10 days	Instrumentation Error	Fixed the Instrument
Instrumentation Failure	10 days	Communication Interruption	Restored Communications
Instrumentation Failure	10 days	Power Outage	Restored Power
Scheduled Maintenance or Repairs	4 days	Field Maintenance	Finished the Maintenance

Table 4c: Instrumentation Outage Report

Pipeline	Station	Outage Start	Outage End	Root Cause