

Enbridge Energy, Limited Partnership Enbridge Line 5 - Straits of Mackinac

Coating Inspections, Findings and Repairs from Activities Completed in 2017

Anchor Inspection Work Plan:
Interim Report

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LIST OF ACRONYMS

AIWP	Anchor Inspection Work Plan	
BIWP	Biota Investigation Work Plan	
CIS	Close Interval Survey	
СР	Cathodic Protection	
CRWP	Coating Repairs Work Plan	
CSE	Copper-Copper Sulfate Electrode	
Enbridge	Enbridge Energy, Limited Partnership	
EPA	Environmental Protection Agency	
ILI	Inline Inspection	
MDEQ	Michigan Department of Environmental Quality	
ROV	Remotely Operated Vehicle (Camera)	



DEFINITIONS

Area(s) of Interest

An Area of Interest is a part of the pipeline where, based on visual inspection, (i) the normal (local) Biota is unexpectedly absent or (ii) there is evidence of possible coating damage (e.g. Dislodged Coating and/or potential Holiday). Disturbed Areas (see definition below) are not Areas of Interest as the lack of Biota can be attributed to past maintenance and monitoring activities.

Biota

Animals and plants living around and on the pipelines through the Straits of Mackinac (e.g. mussels, periphyton, algae, microbes, etc.)

Calcareous Deposit

A layer consisting of calcium carbonate and other salts deposited on the surface. When the surface is cathodically polarized by cathodic protection, this layer is the result of the increased pH adjacent to the protected surface. This layer functions as a barrier against the corrosive environment, leading to a decrease in cathodic protection current demand and more persistent chemical polarization of the pipe surface. A calcareous coating is also known as a calcareous deposit.

Disturbed Area

An area on the pipeline where past maintenance and monitoring activities resulted in the removal of Biota but does not represent damage to the pipe coating.

Dislodged Coating

An area on the pipeline where, based on visual inspection, the outer wrap of the coating appears to have been dislodged or removed without exposure of the pipe steel.

Holidays

An area on the pipeline where there is a discontinuity in the coating that exposes the pipe steel to the environment.

Undisturbed Area

An area on the pipeline where there is no evidence of any loss of Biota (or pipe coating).



1.0 Summary

This interim report supplements Enbridge Energy, Limited Partnership ("Enbridge") November 13, 2017 Status Update [1] on the Anchor Inspection Work Plan ("AIWP"). Specifically, this report addresses the results of Enbridge' coating inspections under that Plan during 2017 and describes the remaining work that will be completed in 2018.

As of the completion of inspection work in December 2017, a total of seven (7) locations from the AIWP inspections have as-found bare metal and/or bare metal created by the removal of calcareous deposits as per the AIWP. One of these locations was partially repaired before work ceased in 2017. A summary of the AIWP inspection findings is found in Table 1, while the summary of repairs completed to date relative to the AIWP inspections is set forth in Table 2. Overall, the AIWP inspections that have been completed represent 100 percent of the Remotely Operated Vehicle ("ROV") inspections of the support anchor locations and approximately 37 percent of the diver inspections of the support anchor locations.

In 2018, Enbridge will repair all remaining bare metal spots, both those as-found and created by removal of calcareous deposits during the 2017 inspections. Currently, the remaining AIWP diver inspected locations have a cumulative bare metal area of less than one-third of a square foot. These locations are not an integrity concern as they are being effectively protected by the Cathodic Protection ("CP") system. All inspections and maintenance actions are being conducted in full compliance with Pipeline and Hazardous Materials Safety Administration ("PHMSA") regulations, 49 CFR Part 195, Subpart H – Corrosion Control. The occurrence of small areas of coating damage has not had an impact on the structural fitness of the pipelines. Ongoing integrity monitoring activities will incorporate enhancements to continual evaluation of coating and cathodic protection performance.



2.0 Introduction

2.1 Objective

This report fulfills the request by the Michigan Department of Environmental Quality ("MDEQ"), Michigan Agency for Energy, Michigan Department of Natural Resources and the Michigan Attorney General Office (collectively referred to as the "State") for an interim report within 30 days of completion of the AIWP in 2017. The State requested that Enbridge's interim report include the following information (the corresponding location within this report that fulfills these requirements are shown in brackets):

- a. Progress of the Work Plan, including percentage of completion (Section 3.1);
- b. Summary of the remainder of the Work Plan to be conducted in 2018 (Section 5.1);
- c. Summary of projected or anticipated deviations from the Work Plan as a result of findings from 2017 (Section 5.1);
- d. Timeline for re-starting operations in 2018 (Section 5.1).

2.2 Background - Work Activities in the Straits

2.2.1 Anchor Inspection Work Plan

During execution of the Biota Inspection Work Plan undertaken pursuant to the federal Consent Decree (Case 1:16-cv-00914, ECF No. 14 filed 05/23/17, Subsection VII.E), it was established that coating damage at one of the investigated sites with calcareous deposits (Location WAS-1) was caused by maintenance activities related to installation of a support anchor in 2014 (anchor rub). At the request of the State, Enbridge developed the AIWP to address the State's concerns regarding possible pipeline coating damage from the installation methods used for the 128 existing screw anchor (see Appendix A). The AIWP was approved by the State on September 22, 2017, and inspections were suspended on December 17, 2017 due to the winter weather conditions that precluded safe continuance of the work. The inspections will resume once weather permits in 2018.

2.2.2 Biota Investigation Work Plan

As a matter of information, and in order to provide a fuller picture of other Dual Pipelines inspection work that has been conducted, the following briefly discusses the status of the Biota Inspection Work Plan ("BIWP").



In late 2014, an assessment was undertaken regarding mussel attachment on the Dual Pipelines. The assessment is publically-available and consisted of a literature review followed by the collection and analysis of mussels collected from the Dual Pipelines [2]. The assessment focused on identifying the mussel community (i.e., zebra or quagga) and the biomass. Based on the 2014 assessment, it was determined that the mussel communities on the Dual Pipelines were primarily quagga mussels and were attaching to the pipe in single layers (i.e., not in multiple layers). A single coating sample was also analyzed for mussel byssal threads and no penetration into the coating was observed.

In accordance with the federal Consent Decree, an additional biota investigation program has been initiated, as described further here. Subparagraph 69.a of the Consent Decree requires Enbridge to conduct an investigation to assess whether the accumulation of mussels and other Biota have impacted the integrity of the pipelines' coating or the underlying metal. In accordance with this requirement, Enbridge prepared a BIWP, which was approved by the EPA on June 13, 2017. Crews were mobilized in August 2017 to inspect the coating on the Dual Pipelines by using work barges, divers, support teams, and underwater remotely ROV equipped with cameras, which provided live feed and recordings to technicians on-board the support barges. In 2017, a total of 23 coating inspection locations (i.e., 18 Areas of Interest and 5 additional sites) associated with the BIWP were examined by divers to gather information regarding the condition of the Dual Pipelines' coating.

Enbridge continues to implement the EPA-approved BIWP, and submitted an update to Environmental Protection Agency ("EPA") (which was copied to the State) on December 19, 2017. This update included a summary of the number and location of coating bare metal areas and repairs undertaken relative to the BIWP inspections.

As noted in Table 3, bare metal (0.01 ft.²) was found by diver inspection at EAS-1. Bare metal (2.57 ft.²) was also created at EAS-3 and EAS-4 by a communication cable rub during the execution of the 2017 BIWP. EAS-3 and EAS-4 were not included in the original BIWP submitted to the EPA; however, these two locations were added due to the mechanical damage caused to the coating on August 26, 2017, by a communication cable. The bare metal at these two locations (i.e., EAS-3 and EAS-4) comprises 99.6 % of the total bare metal as-found at the BIWP locations.



In addition, calcareous deposits were observed at six (6) of the BIWP locations, as shown in Table 3. Calcareous deposits are known in pipeline and other industries to be a byproduct of the cathodic protection of steel surfaces in marine environments. A representative photograph of the calcareous deposit is shown in Figure 1. As discussed further below, the deposits demonstrate that the cathodic protection current is effectively protecting the steel and, as the deposit builds, it serves as an additional protective layer on the steel. As part of the BIWP study, all calcareous deposits were removed, as summarized in Table 3, to confirm the condition of the pipe beneath them (see Sections 4.1 and 4.2) and gather samples to study the deposit chemistry.

As previously communicated to the State regarding the Biota Study, the coating has also been investigated at all biota investigation sites. From the biota investigation sites, there were eight (8) sites in total where either a small area of bare metal was found or where the pipe was made bare because of intentional removal of calcareous deposit. Of these eight (8), all but one was repaired prior to demobilization at the end of 2017 (Table 4). The one remaining location required State and Army Corps of Engineers permits in order to allow the removal of lake bed soil from around the bottom of the pipe prior to recoating. Those permits were received from the State in December 2017 and the Army Corps in January 2018, thus allowing the repair to proceed as soon as possible when weather allows in 2018. The area of this bare metal is 1.64 ft² and will continue to be protected with cathodic protection.

The full findings of the BIWP will be submitted in a final report to the EPA in 2018, and the State will be supplied with a copy of the report.



3.0 AIWP 2017 ROV and Diver Inspection Findings and Repairs

3.1 AIWP ROV and Diver Coating Inspection

In 2017, all 128 installed pipeline support anchor locations were inspected by ROV and a total of 48 locations have been examined by divers to gather further information. Refer to Appendix B for the AIWP ROV and diver inspection forms. The AIWP inspection forms designate the coating features into two categories: (1) "holiday (bare metal)" – holidays that are bare metal areas (as-found); and (2) "deposit" - locations where calcareous deposits have formed a protective barrier. Overall, the AIWP inspections that have been completed represent 100 percent of the ROV inspections of the support anchor locations and approximately 37 percent of the diver inspections of the support anchor locations.

The ROV inspection did not identify any bare metal at any of the 128 anchor locations. In total, 25 of the 128 ROV facilitated anchor inspections identified evidence of calcareous deposits. Divers later identified bare metal at three (3) of the 48 anchor locations and calcareous deposits at 42 out of the 48 anchor locations. The diver inspections are more effective than the ROV in identifying bare metal locations and calcareous deposits because the diver removes the accumulated biota that masks the identification of the bare metal and deposits. No external corrosion metal loss was found at any of the sites. As per Section 5.1.4 of the AIWP, Enbridge is committed in 2018 to repairing any bare metal locations discovered by the AIWP diver inspections and any that were created through removal of deposits.

As noted and shown in Table 1, bare metal was found at three (3) anchor locations: E-10, E-13 and W-3. The total area of anchor location bare metal as-found was 0.83 ft². Section 3.2.3 of the AIWP (Appendix A) requires removal of any calcareous deposits to examine the pipe. Calcareous deposits were removed at five (5) anchor locations (i.e. E-1, E-2, E-5, E-7 and E-10) to confirm the condition of the pipe beneath them (see Sections 4.1 and 4.2), gather samples to study the deposit chemistry, and determine the amount of bare metal area underneath the deposits. Thickness measurements of the coating were also collected at these five (5) anchor locations. The measurements show that the coating that is adjacent to the calcareous deposits had average thicknesses (123 mils) indicating intact (non-damaged) coating.



In total, an additional 0.23 ft² of bare metal was created by the removal of the calcareous deposits. After October 7, 2017, execution of the AIWP was changed to focus on visual examination of the anchor coating for the remainder of 2017 and to leave calcareous deposits in place due to the fact that removal had the potential to create bare metal areas that could not be repaired in time (due to weather) in 2017.

3.2 Coating Repairs

Enbridge submitted the Coating Repairs Work Plan ("CRWP"), Version 3, to the EPA on September 13, 2017 and to the State on September 18, 2017 (Appendix C). The CRWP was prepared in response to Enbridge identifying bare metal on the exterior surface of the Dual Pipelines during implementation of the BIWP. On September 14, 2017 the EPA approved Version 3 of CRWP, and approval from the State was provided on October 5, 2017.

All coating repairs that were completed used a full-circumferential composite wrap repair, Method 1, as outlined in the CRWP, Version 3.0. In total, there were 15 locations of bare metal identified and the majority of these were created by the divers after removal of the calcareous deposits (AIWP - Table 1, and BIWP - Table 3). In 2017, seven (7) of the 15 locations were repaired in accordance with the CRWP. The remaining locations have a total bare metal area of less than 2 ft² and will be re-inspected and repaired in 2018.



4.0 Analysis of Inspection Information

Post the November 13, 2017 Status Update, the steps at this stage involve the collation and organizing of all data gathered from the ROV and diver inspections and first phase analysis of the findings. The process involves in-house and third party experts. The information gathered in this investigation has been and will continue to be integrated alongside all information gathered from core integrity program activities. The evaluation examines the observations regarding any bare metal locations and calcareous deposits and assesses their relationship to operating conditions, existence of mussels, historic maintenance activities, or other factors that are identified. Various analyses have been completed, are underway, or will be added once further data is collated in 2018. Interim findings are described in the following sections.

4.1 Visual Inspection for Corrosion Metal Loss

No external corrosion metal loss was observed by the divers at any of the six (6 as-found bare metal locations (three (3) from the BIWP and three (3) from the AIWP). Moreover, it was confirmed by direct diver inspection that no corrosion metal loss had occurred at any location where the deposits were removed and bare pipe revealed, including the circumferential weld location at EAS-1. The results of the diver's observations are consistent with inline inspection ("ILI") results that have repetitively shown that external corrosion metal loss has not occurred at any location across the entire lengths of both segments. The most recent ILI was conducted in 2017 and additional ILI is scheduled for early 2018. These results provide evidence that corrosion is being effectively managed through the combination of the protective coating, cathodic protection including formation of calcareous deposits, along with regular ILI and associated integrity management activities. Given the low temperatures at pipe depth beneath the water, it is likely that the environment surrounding the pipe is a condition of low corrosivity, and this is an aspect that will be further considered as part of Enbridge's analyses.

4.2 Pipe Wall Thickness

An underwater ultrasonic thickness ("UT") gauge was utilized to measure the pipe wall thicknesses at all coating repair locations. In total, 348 measurements were taken after cleaning the area of any adherent material. After analysis, the average pipe wall thickness measurements at the repair locations were 0.814 ± 0.023 inches (99% confidence level). The minimum wall thickness measurement from all measurements was 0.754 inches, well above



the American Petroleum Institute API 5L Specification for Line Pipe minimum acceptance, which states that the wall thickness tolerances for 0.813 inch (nominal thickness) seamless pipe is from 0.711 to 0.934 inches. The pipe wall thicknesses exceeds both the original version of API 5L used for design and construction, as well as the current (more stringent) version of API 5L. Figure 2 provides a summary of the Line 5 wall thickness variation for the East and West segments and evidences that the wall thickness variation is within the tolerances stated in the API 5L Specification for Line Pipe.

In summary, no external metal loss was observed, and all measurements from direct assessment wall measurement inspection by the diver fall within the API 5L specification for wall thickness tolerance. All values fall within -11% to +10.25%, and therefore within the allowable tolerance of -12.5% to 15% variation of nominal wall thickness. The wall thickness of the Dual Pipelines adds in a substantial safety factor over what would be typically required by pipeline design.

4.3 Cathodic Protection Measurements

CP is an electrochemical method of preventing corrosion of metal structures exposed to aqueous environments. CP is a well-established process that has been used to protect pipelines in soil and water for over 100 years. While it is possible to meet the objective of preventing corrosion using CP or coating systems singly, it is more effective and reliable to use them together. The coating system provides a primary barrier between the steel and the environment and also substantially reduces the amount of metal requiring CP – making the application of cathodic protection simpler and more efficient. It is well understood within corrosion control practice that structures that are coated will experience some coating holidays or coating damage during construction or subsequent events, such as the cable rubs described above. The CP systems are installed to ensure that corrosion is prevented where there are imperfections in the coating system. The Dual Pipelines were designed to be protected using both an external coating system and cathodic protection. The enamel corrosion barrier applied to the dual pipelines was the best available at the time of construction and would be viewed to be an effective corrosion barrier still by today's standards [3].

Enbridge has monitored and maintained the impressed current systems protecting the Dual Pipelines through the Straits in accordance with industry best practice and all applicable regulatory requirements. Routine monitoring activities presently include annual collection and



evaluation of pipe-to-soil potential measurements on each side of the Straits, and continuous remote monitoring of the Enbridge owned impressed current sources affecting the dual pipelines. Over time and as the need arises, the current output of the CP systems are adjusted to maintain protection levels; and the consumable anode beds are upgraded when needed.

Enbridge conducted a close-interval-survey ("CIS") through the Straits in 2003. This survey demonstrated effective protection through the entire survey area, which spanned approximately 3.5 miles through the center of the channel. This survey data is presented in Appendix D and demonstrates the CP system is working as intended.

The execution logistics of the hydrotest conducted in 2017 allowed each of the Dual Pipelines to be electrically isolated from the onshore facilities for the first time since the pipes were constructed. This permitted additional detailed CP testing, including direct measure of the CP current being applied to each pipe, incremental CP current requirement testing, and attenuation analysis. The full report provided by the survey contractor is provided in Appendix E. The report indicated that each pipeline requires roughly 1.5 amperes of current (approximately 0.013 mA/ft²) for complete cathodic protection. As compared to published CP current density requirements of 2 – 6 mA/ft² for bare steel in freshwater [4], this indicates a well-coated pipe with an efficiency in the range of 99.3-99.8%. Direct measurement of applied CP current demonstrates that each line receives more than adequate protective current. These data further support the ILI results that demonstrate effective corrosion control on the Dual Pipelines.

More than 600 pipe-to-water CP measurements were recorded during the BIWP and AIWP. Enbridge employed a criterion of -600mV CSE as an initial indicator of possible bare metal. These measurements are evaluated in consideration of other CP readings in the area when making the determination of metal exposure. The full complement of CP data collected during this investigation is presented in Appendix F. Summary results from each site, including major findings where applicable, are presented in Table 5. A more lengthy discussion of each dives CP readings are detailed in Appendix F.

Cathodic protection potentials recorded during the BIWP and AIWP dive inspections generally exhibited substantial availability of cathodic protection current – as indicated by current applied



'ON' CP readings. The average of all 'ON' readings was -1442 mV CSE, which is approximately 800mV more electronegative than the expected native potential of steel in freshwater. Moderate to high levels of cathodic polarization were also observed in the majority of data – as indicated by the current interrupted 'OFF' CP readings. The average of all 'OFF' readings was -968 mV CSE, which exceeds the requirements of industry best practice [5] and applicable regulations [6].

The prevalence of calcareous deposits impeded the ability of divers to obtain as-found CP potentials; this is due to the high resistance of the calcareous deposits that interfered with the potential measurements. The divers typically had to remove the deposits to obtain CP potential readings – this disturbs the chemical polarization at the pipe surface and reduces the level of cathodic protection as compared to what would have been present with the previously intact deposits. This phenomenon was explored on dive WAS-1; and the data clearly showed that removing the calcareous deposits using a power wire brush diminished the cathodic protection potentials by nearly 100 mV. While the effect is temporary (as the calcareous deposit re-forms), it underscores the positive impact of the intact deposits and highlights the advantage of keeping such deposits intact during future CP surveys. It is also noted that the divers detected no corrosion metal loss at any dives (Sections 4.1 and 4.2); this demonstrates that the cathodic protection being received by the Dual Pipelines has been entirely successful at preventing external corrosion metal loss.

In recognition of the challenges associated with diver based CP measurements, Enbridge is planning an ROV based CIS through the Straits over each pipeline in 2018. CIS is a standard technique for acquiring comprehensive corrosion protection information over the entirety of a structure. Also importantly, using the CIS, the performance of the CP system can be measured accurately without the need to remove the calcareous deposits; this will ensure that the collected data represents the natural CP status of the pipeline – including the beneficial effects of the deposits.

4.4 Calcareous Deposits

Calcareous deposits are a well-known byproduct of CP in scaling water and soil environments. Such deposits form when application of CP drive electrochemical reactions at the pipe surface that increase the alkalinity of the structure-environment interface. The increase of pH is both a



result of the CP current, and the cause of chemical polarization that is observed during structure-to-soil potential surveys [7].

Calcareous deposits have been extensively studied due to the vast amount of offshore infrastructure including ships and barges, docks and piers, oil/gas production platforms and drilling rigs, and subsea pipelines. In order to leverage this industry experience, Enbridge engaged MEARS Group Inc. to perform a literature search and evaluation of the calcareous deposits observed on the Dual pipelines through the Straits. It was noted in the Mears study report that industry practice has been to leave such deposits undisturbed, recognizing the beneficial protective effects of calcareous deposits at coating flaws in conjunction with effective CP. The Mears study also confirmed that experience with calcareous deposits in the seawater setting, which has been more extensively studied, is applicable to the fresh water of the Great Lakes. The Mears study is attached at Appendix G.

In soils or waters where there is sufficient calcium and magnesium present, the increased pH causes precipitation of calcium carbonate and magnesium hydroxide. The process of calcareous deposit formation is shown in Appendix G and the abbreviated chemical reactions are simplified below:

$$\begin{split} & \text{Ca}^{2^{+}}{}_{(\text{aq})} + \text{CO}_{3}{}^{2^{-}}{}_{(\text{aq})} \rightarrow \text{CaCO}_{3(\text{s})} \\ & \text{Mg}^{2^{+}}{}_{(\text{aq})} + \text{CO}_{3}{}^{2^{-}}{}_{(\text{aq})} \rightarrow \text{MgCO}_{3(\text{s})} \\ & \text{Mg}^{2^{+}}{}_{(\text{aq})} + 2\text{OH}^{\text{-}}{}_{(\text{aq})} \rightarrow \text{Mg(OH)}_{2(\text{s})} \end{split}$$

The formation and properties of calcareous deposits on metal surfaces are affected by variables such as cathodic protection current densities, time, temperature, pressure, pH, chemistry, water velocity, and substrate surface condition.

Calcareous deposits are considered a form of coating [8,9]. Studies have shown that the CP current density received by a bare steel surface that is maintained at a stable cathodic potential will decrease over time as calcareous deposit is formed [10]. This is attributed to the calcareous deposit acting as a barrier to prevent oxygen access to the steel surface. Similarly, the calcareous barrier preserves chemical polarization (accumulation of alkaline species) at



the steel/electrolyte interface. As a barrier to movement of chemical species, calcareous deposits achieve the same intended purpose as engineered protective coating systems.

Some of the CP readings obtained before and after wire brushing (removal) of calcareous deposit clearly demonstrated an electropositive shift in CP potential after the deposits were disturbed. These data demonstrate that removing the calcareous deposits will decrease the level of CP achieved at that location. While this effect is temporary until the calcareous deposit reforms (or a new barrier coating system is applied), the observation underscores the beneficial effect of the deposits.

The information reviewed and analyzed to date indicates that the presence of calcareous deposits observed at coating flaws on the Dual Pipelines are a beneficial result of an effective external protective coating system and an effective CP system. The formation of calcium carbonate and magnesium carbonate at coating flaws serves to protect the underlying steel from corrosion at the elevated pH values consistent with the formation and adhesion of the deposits. Corrosion rates for carbon steel are significantly reduced at pH values associated with the application of effective CP and the development of calcium and magnesium carbonate at the pipe surface. This is further substantiated through the ILI results and direct diver observations that indicate no external metal loss anomalies in Dual Pipelines.

Enbridge desires a meeting with the State of Michigan to discuss further the calcareous deposits and whether an amendment to the AIWP is warranted for the handling of the calcareous deposit going forward.



5.0 Future Work

5.1 2018 AIWP Scope of Work

Enbridge will commence execution activities in 2018 in accordance with the schedule set forth below. The execution activities outlined below assume that the proposed modifications to the AIWP are approved. The schedule is highly dependent on weather conditions allowing safe access to perform the work.

Other work scope, such as screw anchor installation or other activity in the Straits, may necessitate adjustments to the schedule outlined below.

- May, 2018: Anticipated earliest seasonal access to begin 2018 dive operations.
- May through September, 2018: Finish remaining diver inspections and complete coating repairs as outlined in the criteria listed in the following sections.
- October, 2018: Demobilize and finish 2018 operations.

Based on the findings provided in this interim report, Enbridge will work with the State to determine future work related to the calcareous deposits located on the Dual Pipelines. At this time, Enbridge proposes the following modifications and clarification to the AIWP and looks forward to feedback from the State.

5.1.1 CP Potential Measurements (Section 3.2.2 of the AIWP)

For the 2018 scope of work, Enbridge proposes that the CP measurements should not be taken through any calcareous deposits. Instead, CP status will be established using a CIS, as discussed in Section 5.3 below. Enbridge would like to discuss these issues further with the State.

Justification: Based on 2017 BIWP and AIWP experience, the likelihood of obtaining valid CP readings due to the high contact resistance presented by the calcareous deposit is extremely low. Additionally, data from 2017 indicates that removing the calcareous deposits can significantly degrade the level of cathodic protection being achieved; thus, efforts to remove deposits to facilitate potential measurements may produce data that no longer represents the original CP status of the pipeline. Enbridge intends to conduct a ROV based CIS in 2018 (Section 5.3), which will provide a more comprehensive and accurate view of CP



levels than is possible using divers. Additionally, penetrating through the calcareous deposits will compromise the protective nature of the deposits. CP readings taken from the anchors will be used in conjunction with the CIS to determine if any anchors are electrically shorted to the pipeline.

5.1.2 Deposit Removal (Section 3.2.3 of the AIWP)

The calcareous deposits effectively protect the steel and no external metal loss corrosion has been seen by the diver inspection or from the 2017 ILI measurements. Enbridge proposes to collect additional deposits in 2018 for chemical analysis and to re-affirm the condition of the pipe surface beneath those deposits. For the 2018 scope of work, Enbridge would like to review with the State the benefits of not immediately removing the calcareous deposits as called for in the AIWP, and rather maintaining the calcareous deposits as is through the completion of the inspections.

Justification: Calcareous deposits provide a protective environment, as discussed at Section 4.4 of this Report.

5.1.3 Criteria for Establishing Coating Defects (Section 3.2.4 of AIWP)

For the 2018 scope of work, Enbridge proposes that only as-found bare metal areas should constitute repairable coating defects. A bare metal area is defined as one with coating thickness less than 25 mils, no calcareous deposit, and CP potentials that are more electronegative than -600mV CSE. Repairs would also be conducted at spots where deposits are removed as part of the deposit examinations. Enbridge would like to discuss these issues further with the State.

Justification: The 2017 work scope was intentionally destructive of the calcareous deposits, and was responsible for creating the majority of bare metal now observed and adversely affecting the cathodic protection levels at some sites. The original plan served the needs of the 2017 work – specifically to examine the surface of the pipe for external corrosion metal loss and to take UT thickness readings. However, it is now better understood that calcareous deposits provide a protective environment.



5.1.4 Criteria for Coating Repairs

Enbridge has established a criterion for coating repair that may be required during the 2018: namely, all bare metal areas identified by diver inspection and confirmed with CP measurements will be repaired. The coating repair areas will include the remaining bare metal locations that have been identified in Table 2 and Table 4 and any new anchor locations with bare metal that are identified during the diver inspection.

5.2 2018 ILI Tool Runs

For the State's information, the Dual Pipelines are on an annual re-inspection interval for cracking, corrosion, and geometry technologies. As the previous inspections were completed in April 2017, a circumferential crack inspection, ILI corrosion inspection, and caliper geometry inspection are planned for the first quarter of 2018. Additionally, quarterly leak detection SmartBall® technology will also be conducted on the Dual Pipelines, consistent with the Consent Decree. Corrosion ILI will be completed in first quarter 2018 which will provide another confirmation of the corrosion condition of the pipeline.

5.3 Close Interval Survey

The CP readings obtained during the AIWP and BIWP underscored various issues, including: (i) the difficulty in obtaining good metal contact, (ii) obtaining CP readings using a manually operated voltmeter (the Polatrak CP gun) with a dynamic display, (iii) reference cell calibration drift over multiple dives, (iv) the challenges associated with synchronously interrupting multiple CP current sources, and the adverse consequence of removing calcareous deposits on the normal levels of cathodic protection. In order to better characterize the level of CP across the entire span of the Dual Pipelines, Enbridge is developing plans to conduct a CIS using a remotely operated vehicle and synchronous datalogging. This will permit a more rigorous analysis of pipe-to-water CP waveforms during rectifier interruption, and a much more comprehensive assessment of the cathodic protection levels through the Straits. The survey will include the following elements:

- Complete inspection of the entire ROV navigable pipe span (as opposed to a few discrete dive areas);
- Rigorous rectifier interruption management;
- Reliable electrical connection to the pipeline to avoid contact resistance issues;



- A more reliable reference cell to avoid contamination issues;
- Synchronized stationary dataloggers to ensure the data has not been affected by transient phenomenon, and to permit transient error correction if required.

Enbridge intends to maintain rigorous integration and correlation of CIS data and ILI data so that any evidence of corrosion metal loss can be correlated to leading factors that can be used for future management of corrosion protection systems through the Straits of Mackinac – ensuring a safe long term operation of the dual pipelines.

5.4 Status of the Enamel Coating

While there is no external corrosion metal loss on the Dual Pipelines, Enbridge wants to understand the origins of the bare metal and calcareous deposits to anticipate any future integrity requirements. Accordingly, Enbridge will be contracting with a third party expert to review historical construction and installation practice, inspection records, and findings from the BIWP and AIWP inspections to determine the probable causes of the coating damage.

The findings will be made available to the State and the public upon completion.

5.5 Alternative Coating Repair Methods

The current coating repair technology requires full circumferential access around the pipe to apply the Stricture Banding[™]. Enbridge has been researching alternative underwater coating repairs methods that would reduce the total dive times associated with a repair and/or not require full circumferential exposure of the pipe (i.e., reduces disturbance of the lake bottom, does not require a permit, and does not require unnecessary repairs over good original pipe coating). If testing of an alternative coating repair method is successful, Enbridge will provide the State and EPA a detailed report of the technology that will include the results and a comparison to currently approved approaches (Method 1 and Method 2). Enbridge will not use any new repair method on the Dual Pipelines unless and until it is approved by the State, and EPA.



6.0 References

- Enbridge Energy, Limited Partnership, "2017 Coating Inspection at Support Anchor Locations", Integrity Management Program - Line 5 Straits of Mackinac, November 13 (2017). Accessed on January 12, 2018 at: http://media.mlive.com/grpress/news_impact/other/Enbridge%20Line%205%20Coating%2 Olnspection%20Status%20Update_11132017.pdf
- S. Kogge and G. De Jong, "Enbridge Line 5 Straits of Mackinaw Assessment of Attached Aquatic Organism", GEI Consultants, November 3 (2014). Accessed on January 12, 2018 at: http://www.enbridge.com/~/media/Enb/Documents/Projects/line5/GEI Memo 2014 AnalysisOfAccumulatedAquaticOrganisms.pdf?la=en
- 3. RP0602-2002, "Field-Applied Coal Tar Enamel Pipe Coating Systems: Application, Performance, and Quality Control", NACE International, Houston, TX (2002).
- 4. UFC 3-570-01, "Cathodic Protection", U.S. Army Corps of Engineers, November (2016).
- NACE SP0169-13, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems", NACE International, Houston TX, (2013).
- 6. Title 49, CFR 195, "Transportation of Hazardous Liquids by Pipeline", Office of the Federal Register, Washington DC (2017).
- 7. R.A Gummow, S. Segall, D. Fingas, "An Alternative View of the Cathodic Protection Mechanism on Buried Pipelines", Materials Performance Vol. 56 No. 3, March 2017, NACE International, Houston TX, (2017).
- 8. Reference Publication "NACE International Glossary of Corrosion Related Terms", Technical Coordination Committee, NACE International, Houston TX, (2002).
- K.K. Baek, C.S. Lim, H.I. Lee, S.B. Shin, "Evaluation of Technical Feasibility on Applying Calcareous Deposit Coatings to Ship Ballasts", Paper 327, CORROSION 99, NACE International, Houston TX, (1999).
- W.H. Hartt, C.H. Culberson, S.W. Smith, "Calcareous Deposits on Metal Surfaces in Seawater – A Critical Review", Paper 59, CORROSION 83, NACE International, Houston TX, (1983).



Tables



Table 1: <u>Diver Inspection Results at Support Anchor Installations (AIWP)</u>

Anchor Label	Area of Bare Metal As-Found (ft ²)	Area of Bare Metal Created by Calcareous Deposit Removal (ft ²)	Area Of Calcareous Deposit Remaining (ft ²)	
E-1	-	0.02	-	
E-2	-	0.04	-	
E-3	-	-	0.04	
E-4	-	-	0.06	
E-5	-	0.01	-	
E-6	-	-	0.08	
E-7	-	0.05	-	
E-8	-	-	0.39	
E-9	-	-	0.44	
E-10	0.63	0.11	0.37	
E-11	-	-	0.14	
E-12	-	-	1.07	
E-13	0.17	-	3.58	
E-14	-	-	-	
E-15	-	-	Less than 0.01	
E-16	-	-	0.05	
E-17	-	-	0.01	
E-18	-	-	0.63	
E-19	-	-	0.63	
E-20	-	-	0.06	
E-21	-	-	0.07	
E-23	-	-	0.39	
E-24	-	-	Less than 0.01	
E-25	-	-	-	
E-26	-	-	-	
E-27	-	-	0.70	
E-28	-	-	-	
E-29	-	-	0.06	
E-30	-	-	0.03	
E-67	-	-	1.02	
W-1	-	-	-	
W-2	-	-	0.19	
W-3	0.03	-	0.21	
W-4	-	-	-	
W-5	-	-	0.04	
W-6	-	-	Less than 0.01	



Table 1: Diver Inspection Results at Support Anchor Installations (AIWP) cont'd

Anchor Label	Area of Bare Metal As-Found (ft²)	Area of Bare Metal Created by Calcareous Deposit Removal (ft ²)	Area Of Calcareous Deposit Remaining (ft ²)
W-7	-	-	Less than 0.01
W-8	-	-	0.03
W-9	-	-	0.40
W-10	-	-	1.24
W-11	-	-	2.64
W-12	-	-	0.17
W-13	-	-	0.04
W-57	-	-	0.20
W-58	-	-	0.09
W-59	-	-	0.36
W-60	-	-	0.22
W-61	-	-	0.26



Table 2: Summary of AIWP Coating Repairs at Bare Metal Locations

Location	Coating Repairs Completed	Area Of Bare Metal Remaining (ft²)
E-1	Spring 2018	0.02
E-2	Spring 2018	0.04
E-5	Spring 2018	0.01
E-7	Spring 2018	0.05
E-10	Partially	Less than 0.01 [†]
E-13	Spring 2018	0.17
W-3	Spring 2018	0.03
	Total	0.33

¹Small area of bare metal located near anchor. Repair will resume in Spring 2018.



Table 3: <u>Diver Inspection Results at BIWP Locations</u>

Location	Area of Bare Metal As-Found (ft ²)	Area of Bare Metal Created by Calcareous Deposit Removal (ft ²)	Area of Calcareous Deposit remaining (ft²)
EAOI-1	-	0.03	-
EAOI-2	-	-	-
EAOI-3	-	-	-
EAOI-4	-	-	-
EAOI-5	-	0.01	-
EAOI-6	-	-	-
EAOI-7	-	6.18	-
EAOI-8	-	-	-
EAOI-9	-	-	-
EAOI-10	-	-	-
EAOI-11	-	-	-
EAS-1	0.01	0.88	-
EAS-2	-	0.14	-
EAS-3	0.93	-	-
EAS-4	1.64	-	-
WAOI-1	-	-	-
WAOI-2	-	-	-
WAOI-3	-	-	-
WAOI-4	-	-	-
WAOI-5	-	-	-
WAOI-6	-	-	-
WAOI-7	-	-	-
WAS-1	-	0.40	-



Table 4: Summary of BIWP Coating Repairs at Bare Metal Locations

Location	Coating Repairs Completed	Area Of Bare Metal Remaining (ft ²)
EAOI-1	Yes	0
EAOI-5	Yes	0
EAOI-7	Yes	0
EAS-1	Yes	0
EAS-2	Yes	0
EAS-3	Yes	0
EAS-4	2018	1.64
WAS-1	Yes	0
	Total	1.64



Table 5: Summary of CP Measurements from BIWP and AIWP

_	CP Measurement (-mV vs. CSE)			Date	
Location	ON _{avg}	OFF _{avg}	OFF _{min}	(DD/MM/YY)	Comments
WAS-1	1358	885	836	9/22/2017	'ON' readings indicate available CP current, average 'OFF' reading indicates full protection.
EAS-1	1535	1019	945	10/06/2017	Full protection observed
EAS-2	-	-	-	-	No valid CP readings were obtained
EAS-3	841	806	783	8/29/2017	'ON' readings indicate available CP current, all readings believed to contain unknown source of error (calibration, procedure, transients).
EAS-4	961	865	844	8/30/2017	'ON' readings indicate available CP current, average 'OFF' reading indicates full protection. Readings possibly contain unknown source of error (calibration, procedure, transients)
EAOI-1	-	-	-	-	No valid CP readings were obtained
EAOI-5	-	-	-	-	No valid CP readings were obtained
EAOI-7	1365	1082	903	10/12/2017 10/13/2017	'ON' readings indicate available CP current, 'OFF' reading indicates full protection.
E-1	1646	907	907	9/30/2017	'ON' readings indicate available CP current, 'OFF' reading indicates full protection.
E-2	1509	-	-	10/1/2017	'ON' readings indicate available CP current.
E-5	1632	-	-	10/26/2017	'ON' readings indicate available CP current.
E-7	1554	-	-	10/2/2017	'ON' readings indicate available CP current.
E-10	1601	1042	912	11/2/2017	'ON' readings indicate available CP current, 'OFF' reading indicates full protection.
E-13	1486	-	-	10/6/2017 10/9/2017	'ON' readings indicate available CP current.
W-3	1606	-	-	10/9/2017 10/13/2017	'ON' readings indicate available CP current.
W-57	-	-	-	-	No valid CP readings were obtained



Figures

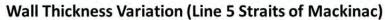




Figure 1: Photograph showing a calcareous deposit at EAS-2

Note: The average thickness of the calcareous deposit and adjacent enamel coating was 0.12 and 0.13 inches, respectively.





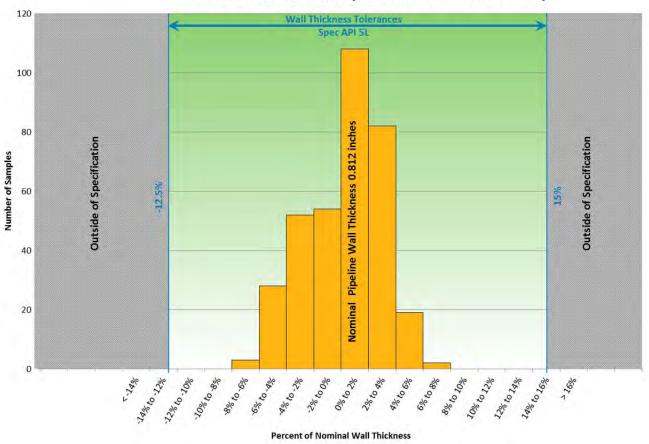


Figure 2: Pipe wall thickness distribution at coating repair locations.



Appendix A – Anchor Inspection Work Plan



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September 15, 2017

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Re: Line 5 Dual Pipelines at the Straits of Mackinac and Enbridge Response to Request Letter dated September 1, 2017 – Requested Action 2

Dear Attorney General Schuette, Director Grether and Director Creagh:

This letter responds to Requested Action 2 that is specified in your letter dated September 1, 2017. Please find enclosed for the State's review and approval, a copy of Enbridge's "Coating Inspection in the Vicinity of Installed Pipeline Anchors Work Plan," including appendices. The Work Plan sets forth, in accordance with your September 1 letter, procedures to inspect each area on the Line 5 Dual Pipelines crossing of the Straits where a pipeline anchor has been installed to determine whether and to what extent the external coating has been damaged, including a schedule for implementation.

The Honorable Bill Schuette, Director Grether and Director Creagh September 15, 2017 Page 2

Enbridge has the personnel and resources available to begin the coating inspections immediately and plans are in place to commence the work in light of the lateness of the work season in the Straits. We look forward to the State's approval of the Work Plan.

Please notify us if you have any comments or questions regarding the Work Plan.

Sincerely,

ENBRIDGE ENERGY, LIMITED PARTNERSHIP By Enbridge Pipelines (Lakehead) L.L.C. Its General Partner

113 General Fallici

Bradley F. Shamla

Vice President, U.S. Operations

cc: Valerie Brader, Executive Director, Michigan Agency for Energy

Enclosure



Enbridge Line 5 Straits of Mackinac, MI

Coating Inspection in the Vicinity of Installed Pipeline Anchors Work Plan

Enbridge Energy, Limited Partnership

Submitted: September 15, 2017



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TABLES

Table 1: Anchor Locations (Inspection Project Scope)

APPENDICES

Appendix A. Video Inspection Report Form

Appendix B. Diver Inspection Report Form



LIST OF ACRONYMS

CP	Cathodic Protection	
CPDM	Cathodic Protection Data Management	
CSE	Copper Sulphate Electrode	
DFT	Dry Film Thickness	
Enbridge	Enbridge Energy, Limited Partnership	
mV	Millivolt	
ROV	Remote Controlled Vehicle	
USEPA	United States Environmental Protection Agency	



DEFINTIONS

Area(s) of Interest

An Area of Interest is a part of the pipeline where, based on visual inspection, (i) the normal (local) Biota is unexpectedly absent or (ii) there is evidence of possible coating damage (e.g., Dislodged Coating and/or potential Holiday). Disturbed Areas (see definition below) are not Areas of Interest as the lack of Biota can be attributed to past maintenance and monitoring activities.

Biota

Animals and plants living around and on the pipelines through the Straits (e.g. mussels, periphyton, algae, microbes).

Dislodged Coating

An area on the pipeline where, based on visual inspection, the outer wrap of the coating appears to have been dislodged or removed without exposure of the pipe steel.

Disturbed Area

An area on the pipeline where past maintenance and monitoring activities resulted in the removal of Biota but does not represent damage to the pipe coating.

Holidays

An area on the pipeline where there is a discontinuity in the coating that exposes the pipe steel to the environment.

Undisturbed Area

An area on the pipeline where there is no evidence of any loss of Biota (or pipe coating).



1.0 Introduction

Pursuant to the September 1, 2017 letter from the State of Michigan ("September 1 Letter"), Enbridge has prepared this "Coating Inspection in the Vicinity of Pipeline Anchors - Work Plan". Enbridge anticipates the information obtained from this investigation will complement the information gathered during integrity monitoring activities already being undertaken by Enbridge.

The federal consent decree (Case 1:16-cv-00914, ECF No. 14 entered May 23, 2017),) entered between Enbridge Energy, Limited Partnership (Enbridge) and the United States requires that Enbridge initiate a detailed investigation into the potential for marine organisms to impact the integrity of the two 20-inch diameter pipelines ("Dual Pipelines") that span the Straits of Mackinac ("Straits") and form part of Enbridge's' Lakehead System Line 5 pipeline ("Line 5"). That investigation is detailed in Enbridge's Biota Investigation Work Plan (BI Work Plan), which was prepared for and, in June 2017, approved by the United States Environmental Protection Agency ("USEPA").

The BI Work Plan identified eighteen (18) Areas of Interest for investigation, as well as three additional sites for coating damage investigation. As Enbridge previously advised the State, one of these additional sites (WAS-1 in Span W-68A) was coincident with an area of the west pipeline where a pipe support anchor was installed in 2014. Dive inspection at this site confirmed four small areas of coating loss (with a total area of 0.38 square feet). Electrical measurements indicated high levels of cathodic protection, and no external metal loss was observed.

In the September 1 Letter, the State makes note of the fact that at least one of the investigated sites with a coating gap was adjacent to an area where a screw anchor had been installed. The State expresses concern as to whether the methods used for installation of such anchors might have resulted in damage to the coating of the pipeline. The State has thus requested that Enbridge submit a plan, subject to approval by the State, for an investigation of anchor sites. This Work Plan is intended to fulfill that requirement.



2.0 Michigan AG Requested Actions

The September 1 Letter requests that Enbridge undertake the following Requested Actions:

- 1. Within 7 days from the date of this letter, provide the State with an interim report describing each location where damage to the external coating has been observed, the extent and nature of the damage, and any available documentation, including, without limitation, photographs and videos.
- 2. Within 14 days from the date of this letter, provide the State with a plan to inspect each area on the pipeline where a pipeline anchor was installed to determine whether and to what extent the external coating has been damaged. The plan should include an implementation schedule and is subject to approval by the State.
- 3. Within 21 days from the date of this letter, provide the State with a plan detailing the materials, methods and procedures Enbridge will used to repair all areas where damage to the external coating is identified. The plan should include an implementation schedule and is subject to approval by the state. We expect that the Schedule would provide for completion of repairs in the identified areas as soon as possible, and in any event within the same construction season during which they are identified."

Enbridge responded to Requested Action no. 1 in a letter to the State dated September 8, 2017. This Work Plan is submitted in response to Requested Action no. 2. Enbridge intends to separately respond to Requested Action no. 3.



3.0 Details of Inspection Plan

Since 2002, Enbridge has installed 128 pipe support anchors on the Dual Pipelines. Table 1 provides a listing, GPS coordinates, and the depth of all anchors that have been installed, which will be inspected as part of this Inspection Plan.

3.1 ROV Examination

A ROV will be deployed to record detailed video on both sides of each of the Dual Pipelines for a span of 20 feet on each side of the target anchor. The video log will be documented to show the direction of the ROV (North or South). The first pass will be conducted on the east or west side of each pipeline based on existing water currents at the time of the inspection – the first pass will be completed in a manner that minimizes interference by suspended sediment that may be stirred up by the ROV's propulsion systems.

A second pass with the ROV will be completed on the opposite side of each pipeline.

The swimming velocity of the ROV will be maintained at a sufficiently low rate to enable detailed inspection by the operator; and the visual image of the pipe should be maintained at approximately 30% of the video field of view unless close-up imaging is required.

In the event that areas of interest, holidays or deposits are found, the ROV and camera system will be carefully navigated to record the nature of the feature. The ROV operator will document these inspections on the ROV Inspection Form for L5 Straits of Mackinac ("ROV Inspection Form"), which is enclosed as Appendix A.

In the event that water currents or general turbidity in the water preclude good quality inspection, the same shall be noted on the ROV Inspection Form. In these cases, a more extensive dive examination will be conducted, in accordance with the diver examination measures described below in Section 3.2.

3.2 Diver Examination

Following the completion and analysis of the video inspections recorded by the ROV, a diver will be deployed to each anchor to conduct a detailed manual examination of the pipe support anchor and adjacent pipe coating. This inspection will span approximately six (6) feet axially



on both sides of the pipe support anchor, for a total inspection of approximately 12 feet. In cases where the previous ROV examination produced insufficiently good quality images for video analysis, the diver examination will include an additional 14 axial feet of inspection on each side of the anchor (extending the full 20 feet of the ROV inspection scope)¹.

The diver will first manually remove biota from the pipe (+/- 6 feet of the anchor location only) and will communicate observations to the dive-supervisor onboard the support boat/barge. The general and detailed observations will be recorded on the Diver Inspection Form for L5 Straits of Mackinac ("Diver Inspection Form", which is enclosed as Appendix B).

The Diver Inspection Form will include detailed documentation of locations that are found to be disturbed areas, dislodged areas, coating holidays, or contain deposits. Location data shall include the feature classification (e.g., dislodged coating, coating holiday, deposits, if any), the circumferential orientation of the feature (o'clock position), size of the feature, and approximate distance of the feature from the pipe support anchor. Feature classification and location data shall be recorded for all features observed within the span of the diver inspection.

3.2.1 Coating Thickness Measurements

In the absence of any features in the coating at a pipe support anchor location, the diver shall record at least two representative coating thickness readings within six (6) feet on each side of the anchor (a total of four (4) readings).

In the presence of: (i) disturbed areas, (ii) dislodged areas, (iii) coating holidays, and/or (iv) deposits, coating thickness measurements will be obtained from at least one (1) representative location within each feature area. Larger features may have two (2) to three (3) readings obtained depending on feature size. For comparison to intact coating, adjacent coating thickness measurements will also be obtained from four (4) locations surrounding the feature within two (2) inches of the feature, and a second set of adjacent four (4) coating thickness measurements will be obtained approximately 12 inches outside the feature of interest.

¹ This additional diver inspection does not require removal of biota unless missing coating is observed.



3.2.2 CP Potential Measurements

The Polatrak Cathodic Protection (CP) gun will be employed to record CP potentials. The resulting data will be used to establish the existence of bare metal on the pipelines. CP measurements will be obtained from areas of obvious bare metal, suspected holidays (with Dry Film Thickness (DFT) thickness less than the minimum resolvable measurement of the DFT gauge), as well as through any deposits that have formed on the pipe wall regardless of indicated DFT measurement. Because the CP gun's angled probe is designed to penetrate thin film coatings, firm continuous pressure is to be applied at bare metal, suspected holidays, and deposits by the diver. Sharp impact or excessive pressure shall not be applied by the diver, as this would damage intact pipe coating.

3.2.3 Deposit Removal

Where white calcareous deposits are encountered, the diver will use a non-metallic scraper to remove the deposit to expose the pipe surface underneath.

The surface of the pipe will be cleaned and any exposed steel shall be visually assessed to determine the amount of bare steel expressed as a percentage of the original white deposit covered area. In the divers/ROV operators opinion, the percentage of exposed area will be evaluated and recorded with maximum precision of 10% area (i.e., 0, 10, 20, ...90, 100).

If bare metal is visually confirmed, then the Polatrack CP gun shall be used to re-record cathodic protection measurements (per section 3.2.2) from the same approximate locations as originally recorded.

3.2.4 Criteria for Establishing Coating Defects

Enbridge's Dual Pipelines through the Straights were designed with: (i) a corrosion preventing enamel coating system, which is intended to isolate the pipeline from the lake water; and (ii) a fibre reinforced outer wrap, which is intended to prevent damage to the protective enamel coating during pipeline installation. Areas of damaged or missing outer wrap that have been confirmed by residual thickness measurements greater than 40 mils do not constitute a repairable coating defect.



A coating holiday (area of exposed metal) can only be established by clear visual evidence of bare metal (alone), or coating thickness measurements less than 25 mils in conjunction with CP potentials that are more electronegative than -600mV CSE.

The divers that will be used on this project must be Operator Qualified (OQ) certified for CP readings. Data collected during this investigation will be evaluated by one of Enbridge's NACE Accredited CP Specialists prior to incorporation into Enbridge's Cathodic Protection Data Management (CPDM) system.



4.0 Quality Assurance/Quality Control

Quality assurance/quality control measures will be implemented to ensure the integrity of samples and measurements that are generated as a result of actions required under this Work Plan. Such measures shall include, but not be limited to:

- Project organization: the Project Manager, subcontractors, and all parties taking part in
 this effort will be identified and their roles will be articulated prior to commencing
 efforts. Planning and coordination calls and/or meetings will take place with divers,
 members of the integrity team, biologists, etc., to ensure the proper execution of
 sampling and data collection protocol.
- All instruments will be calibrated prior to and throughout their use according to manufacturer recommendations.
- Video photography and audio communication (between divers and personnel on boats)
 will be utilized to ensure proper documentation of conditions and sampling requirements.
- Documentation and records: field notes, laboratory reports, etc., will be compiled and saved at secure locations in hard copy and/or electronic format.
- Data validation: Data generated through the course of these efforts will be routinely evaluated for accuracy, precision, representativeness, and completeness.
- Reporting: Reports and project deliverables will be edited, reviewed, and finalized prior to submittal. A final report detailing the findings will be provided to the State after completion of the anchor coating inspections and assessment of the data.





5.0 Implementation Schedule

Enbridge will implement this Work Plan in accordance with the schedule set forth below. This Plan is also highly dependent on weather conditions allowing safe access to perform the work. Logistical requirements and seasonal limitations may necessitate completing some of the anchor inspection efforts in 2018.

- September 14, 2017: Commence ROV inspections
- October 1, 2017: Commence Diver inspections
- November 30, 2017: Anticipated end of safe seasonal access
- May, 2018: Anticipated earliest seasonal access if dive inspections cannot be fully completed in 2017.



TABLES

Table 1: Anchor Locations

Anchor Indentification E-1 73 E-2 74 E-3 73 E-4 74 E-5 75 E-6 83 E-7 88 E-8 88 E-9 87 E-10 86 E-11 86 E-12 80 E-13 78	The state of the s	Longitude
E-1 73 E-2 74 E-3 73 E-4 74 E-5 75 E-6 83 E-7 88 E-8 88 E-9 87 E-10 86 E-11 86 E-11 86 E-12 80 E-13 78 E-14 82	REDACT	TËD:
E-3 73 E-4 74 E-5 75 E-6 83 E-7 88 E-8 88 E-9 87 E-10 86 E-11 86 E-12 80 E-13 78 E-14 82		
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E-10 86 E-11 86 E-12 80 E-13 78 E-14 82		
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E-13 78 E-14 82	THE STATE OF	
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E-15 81		
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E-18 97		
E-19 99		
E-20 101	TX IV	
E-21 107 E-22 107	- Miles Country	
E-23 107 E-24 106	-	
E-25 103	THE REAL PROPERTY.	
E-26 105		
E-27 104	0.1	
E-28 114	Control of the last	
E-29 116		
E-30 117		
E-31 124	CIK N. J.	
E-32 127		
E-33 131	Barrier St.	
E-34 136	- 11	
E-35 139	-	
E-36 142 E-37 143		
E-38 148	-	
E-39 148		
E-40 151		
E-41 150	-	
E-42 145		
E-43 133		
E-44 139		
E-45 143		
E-46 147	4	
E-47 195	N. T.	
E-48 219		
E-49 227	-)	
E-50 230	- 12	
E-51 233 E-52 231	1	
E-52 231 E-53 229	3.0	
E-54 228	10.7	
E-55 224		
E-56 220		
E-57 221	12	
E-58 221	X3	
E-59 220		
E-60 220	N To	
E-61 215		
E-62 209	DUT TO	
E-63 188	10	
E-64 179	- 174	
E-65 169 E-66 160	W	
E-66 160 E-67 69	MSC	

Longitude	100	Water	
	Latitude	Depth (ft)	Anchor Indentification
D	REDACTE	78	W-1
		78	W-2
		76	W-3
		75	W-4
		73	W-5
		91	W-6
		93	W-7
		109	W-8
		116	W-9 W-10
		123	W-10
		126	W-12
		137	
		137	W-17
		138	W-18
		137	W-19
		136	W-20
		133	W-21
		130	W-22
		128	W-23
		124	W-24
		125	W-25
		141	
		_	
		-	
		-	
		235	
		235	W-41
		241	W-42
		245	W-43
		249	W-44
		235	W-45
		233	W-46
		224	W-47
		224	W-48
		_	
		_	
		75	W-61
		127 136 138 137 138 137 138 137 138 137 136 133 130 128 124 125 141 146 165 171 173 177 180 173 173 173 173 173 173 173 173	W-13 W-14 W-15 W-16 W-17 W-18 W-19 W-20 W-21 W-22 W-23 W-24 W-25 W-26 W-27 W-28 W-29 W-30 W-31 W-32 W-33 W-34 W-35 W-34 W-35 W-36 W-37 W-38 W-39 W-40 W-41 W-42 W-43 W-44 W-45 W-46 W-47 W-48 W-49 W-50 W-51 W-52 W-53 W-56 W-57 W-58 W-59 W-60



APPENDICES



Appendix A – Video Inspection Report Form



		General Ir	nformation	
Date: AFE / W.O.# Pipe Support Longitude:		Contractor: ROV Operator: Water Depth (ft): Latitude:		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ROV Visual Ir	nspection Log	
		it Description e, travelling N/S)	Video (start/	Video Reference (hh:mm:ss)
		ROV Visual Ins	pection Results	
Feature Number	Location of Feature (w.r.t. pipe support)	Visual Classi	fication of Feature	Video Reference (hh:mm:ss)
Number	(w.r.t. pipe support)	☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	(mmma-/
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other	
	oating observed on	Pipe Location w.r.t.		



	Comments/Issues/Discussion	
Contractor Signature		Date



THE TANK	South End of A	ffected and Non-Affec	eted Area
	For all sections of dislodged Included the date and time	l coating or holidays, pro	ovide pictures below. b video surveillance
Date:	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)
	Overal For all sections of dislodged Included the date and time	I South Affected Area coating or holidays, pro stamps associated with	ovide pictures below.
Date		Date:	Frame(HH:MM:SS)
Date: Comments:	Frame(HH:MM:SS)	Date:	Frame(HH:IVIIVI:55)



ROV Inspection Form for L5 Straits of Mackinac

	Included the date and time	a stamps appointed wit	rovide pictures below.
ate:	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)
mments:	* * * * * * * * * * * * * * * * * * * *		
		Anchor	
	For all sections of dislodged	d coating or holidays, pr	ovide pictures below.
	Included the date and time	stamps associated with	h video surveillance.
41	France (I II I MANA CO)	Deter	Frame/IJIJ:MM:CO
ate:	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

ite.	Frame(HH·MM:SS)	Date:	Frame(HH:MM:SS)	
V2017351	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)	
WATER TO THE PARTY OF THE PARTY	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)	
WATER TO THE PARTY OF THE PARTY				
WATER 1	North End of A	ffected and Non-Affec	ted Area	32
V2017351		ffected and Non-Affec	eted Area ovide pictures below.	
V2:500.50	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	3
V2017351	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	-
V2:500.50	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	
25/35	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	
020035	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	
V2:500.50	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	5~
V2017351	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	5
W201016	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	5
ate: mments:	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	
WATER TO THE PARTY OF THE PARTY	North End of A	ffected and Non-Affec	eted Area ovide pictures below.	

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

	N. S. S. S. S.	Feature #2	New York of the second
	For all sections of dislodge Included the date and time	d coating or holidays, pl s stamps associated wit	rovide pictures below. h video surveillance.
Date:	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)

Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

ENBRIDGE		ENBRIDGE		ROV In	OV Inspection Form for L5 Straits of Mackinac			
		M:SS)	Date:	Frame(HH:MM:SS)				

		Feature #4	
	For all sections of dislodge Included the date and time	d coating or holidays, pr e stamps associated wit	rovide pictures below. h video surveillance.
Date:	Frame(HH:MM:SS)	Date:	Frame(HH:MM:SS)



Appendix B – Diver Coating Inspection Report Form



		General	Information		
Date:		1	Diver:		
AFE/W.	O.#:		Company Rep	/ Inspector:	
	port Anchor:		Nater Depth (
Longitud			.atitude:	*	
		Diver Insp	ection Recor	d	
Feature Number	Location of Feature (w.r.t. pipe support)	Circumferential Position of the Feature (o'clock position)	Measured Feature size (ft²)	Visual Class	sification of Feature
				☐ Dislodged Area☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area ☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area☐ Deposit	□Holiday (bare metal) □Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal) ☐Disturbed Area
				☐ Deposit ☐ Dislodged Area	☐Holiday (bare metal)
142.11				☐ Deposit	□Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	□Disturbed Area
				☐ Dislodged Area	□Holiday (bare metal)
				☐ Deposit	☐Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	□ Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	□Disturbed Area
				☐ Dislodged Area	□Holiday (bare metal) □Disturbed Area
				☐ Deposit☐ Dislodged Area	☐ Holiday (bare metal)
1-1-1				☐ Dislouged Area ☐ Deposit	☐ Holiday (bare metal) ☐ Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	□Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	☐ Disturbed Area
				☐ Dislodged Area	☐Holiday (bare metal)
				☐ Deposit	□Disturbed Area
observed.	table rows as necessa Feature numbering sta deo images)	ry to identify all features arts at top row (for	Biota present:	□Y	ES 🗆 NO



Dislodged coating observed on the lake floor: □YES □NO	Lake floor location wrt pipe:
C	omments/Issues/Discussion
Contractor Signature	Enbridge Representative/ Inspector Signature
Coating	Gauge Information

	Coating Gauge	Information			
Manufacturer:	Elcometer Inspection Equip	Product:	211 Coating Thickness Gauge		
Last Calibrated:	08/09/2017	Next Calibration Due:	08/09/2018		
Gauge verified prior to use:	⊠YES □ NO				
Coating Thickness	ss Inspection Data (complete	e this table in the absence	of any Features)		
Location	Coating Thickness (mil)	Distance from Anchor (ft) Location on Pipe (o'clock)		
North of Anchor #1					
North of Anchor #2					
South of Anchor #1					
South of Anchor #2					
Average Thickness					



Diver Inspection Form for L5 Straits of Mackinac

Ċ	athodic Prot	ection and Coating Me	asurements	s (for Feature #) ¹	
CP Reading #1 (mV) (north end of feature)	N/R	CP Reading #2 (mV (center of feature)) N/R	CP Reading #3 (mV) (south end of feature)	N/R
DFT #1 (mil) (north end of feature)	N/R	DFT #2 (mil) (center of feature)	N/R	DFT #3 (mil) (south end of feature)	N/R
(record #2 for featu	res < 2" long; re	ecord #1 and #3 for feature	s 2"-8" long; r	record #1, #2 and #3 for features >8" long)	
Temperature (°F)		DFT Adjacent to Feature (mil) (~2" away from edge)	DFT Adjacent to Feature (mil) (~8"-12" away from edge)	
	ncluded the o	Provide 1 to 2 photos date and time stamps as			
Date: Fran	ne(HH:MM:SS	S) D	ate:	Frame(HH:MM:SS)	

Note: CP readings will not be taken at features classified as disturbed areas or dislodged areas.

¹ Copy this page for each feature identified in the preceding page table.



Appendix B – AIWP ROV and Diver Inspection Forms



General Information							
Date:		9-14-17	,	Contractor:		Ball	ard Marine Co
AFE / W.O.#:		200089	90	ROV Operator	•	Bria	n H.
Pipe Suppor	t Anchor:	E-1 (E-7	'4A / E-74B	Water Depth (
		South)			•		
Longitude:				Latitude:			
			ROV Visi	ual Inspection Lo	og		
	R	∩V Transi	it Description		Video Lo	α .	Video Reference
	I		e, travelling N/S)		(start/end		(hh:mm:ss)
		raveling S			4:41	,	13:03:26
		_	st, Top, and Wes	t of Pipe	23:11		13:22:00
		-		-			
			ROV Visua	I Inspection Res	ults		
Feature	Location of	f Feature	\frac{1}{2}			V	ideo Reference
Number	(w.r.t. pipe s	support)	Visual Ci	assification of F	eature		(hh:mm:ss)
4	12:00 on Pipe	e, Below	☐ Area of Inter	rest □Holiday (bare metal)	Т	ime: 1:07:48pm
1	Anchor		□ Deposit	□Other			Video: 8:51
2	12:00 on Pipe						
	North of anch	nor	□ Deposit	□Other			Video: 19:38
			☐ Area of Inter	rest □Holiday (bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other	bara matal)		
			☐ Area of Inter☐ Deposit	□ Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Area of filter	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	□ Other			
Dislodged co	oating observ	ed on		w.r.t. Lake Floor:			Fully augnonded
the lake floor: □YES ⊠NO		(ie. partially buried, fully suspended)				Fully suspended	



Comments/Issue	s/Discussion
Feature 1: Potential deposit located at 12:00 on pipe	, directly below anchor installation.
Feature 2: Potential deposit located at 12:00 on pipe	, approx. 10' North of Anchor
13-	
	12/12/2017
Contractor Signature	Date



ROV Inspection Form for L5 Straits of Mackinac

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-14-17 Frame(HH:MM:SS)

1:03:59

Date:

Frame(HH:MM:SS)

South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-14-17 | Frame(HH:MM:SS) | 13:03:55 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-14-17 | Frame(HH:MM:SS) | 13:12:00 | Date: 9-14-17 | Frame(HH:MM:SS) | 13:13:30

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-14-17 | Frame(HH:MM:SS) | 13:18:35 | Date: 9-14-17 | Frame(HH:MM:SS) | 13:18:45



General Information								
Date:	Date: 9-14-17		7 Contractor:			Ballard Marine C		
AFE / W.O.#	:	200089	90	ROV Operator	:	Bria	an H.	
Pipe Suppor	t Anchor:	,	'4B South/E-	Water Depth (f	ft):			
		74B No	rth)					
Longitude:				Latitude:				
			ROV Visu	ial Inspection Lo	og			
		ROV Transi	t Description		Video I	•	Video Reference)
		(E/W of pipe	e, travelling N/S)		(start/e		(hh:mm:ss)	
		Traveling S	outh/North		24:10 36:4		13:23:13 13:35:34	
		Video accid	lentally stopped	then started	0:00		13:35:35	
		new video	icitally stopped	then started	5:27		13:41:13	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature		·		,	Video Reference	
Number		e support)	Visual Cla	assification of F	eature	·	(hh:mm:ss)	
	11:00 posit	tion on	☐ Area of Inter	est □Holiday (bare metal)		13:35:26	
1	pipe, appro		⊠ Deposit	□Other ⊂	,		Video: 36:28	
	110141 0174	10.101	☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Interest☐ Deposit	est ⊔Hollday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other	h = n = (t - !)			
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit☐ Area of Inter	□Other	bare metal)			
			☐ Deposit	est ⊟⊓oliday (□Other	baie ilielai)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Partially Buried		
	Comments/Issi	ues/Discussion			
Feature 1: Potential deposit loca	ted at approximate	ely 11:00 position on p	pipe and 10' North of Ar	nchor.	
·					
1/13-					
Contractor Signatu	ıre	•	2/12/2017 Date		
Contractor Signatu			Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 13:23:13
 Date:
 Frame(HH:MM:SS)

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



ROV Inspection Form for L5 Straits of Mackinac



Date: 9-14-17 | Frame(HH:MM:SS) | 13:38:58 | Date: | Frame(HH:MM:SS)

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: Frame(HH:MM:SS) Date: Frame(HH:MM:SS)



General Information							
Date:		9-14-17	Contractor:			Ballard Marin	
AFE / W.O.#		200089	90	ROV Operator	••	Bri	ian H.
Pipe Suppor	t Anchor:	E-3 (E-7	4B North / E-	Water Depth (ft):		
		74C)					
Longitude:				Latitude:			
			ROV Visu	ual Inspection L	og		
		ROV Transi	t Description		Video Lo	a	Video Reference
			e, travelling N/S)		(start/end		(hh:mm:ss)
		POV inspor	cting South to No	orth	6:22		13:42:09
		KOV mspec	ting South to N		20:00		13:55:48
			701/1/				
			ROV Visua	I Inspection Res	ults		
Feature Number		of Feature be support)	Visual CI	assification of F	eature		Video Reference (hh:mm:ss)
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest ⊟Holiday (□Other	bare metal)		
			☐ Deposit		bara matal)		
			☐ Area of Inter☐ Deposit	□ Other	bare metal)		
			☐ Deposit		bare metal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest \square Holiday (bare metal)		
			☐ Deposit	□Other	,		
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	,	bare metal)		
			☐ Deposit	□ Other	The man was to IN		
			☐ Area of Inter	,	bare metal)		
Dislodged c	L Oating obe	erved on	☐ Deposit	□Other			
Dislodged coating observed on the lake floor: □YES ⊠NO		Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)				Fully Suspended	



Comments/Issues/Discussion						
No Holidays, Areas of Interest, or any other unusua	No Holidays, Areas of Interest, or any other unusual conditions observed around this anchor.					
113	12/12/2017					
Contractor Signature	Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-14-17

Frame(HH:MM:SS)

13:46:27

Date:

Frame(HH:MM:SS)

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-14-17

Frame(HH:MM:SS)

13:42:12

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 13:52:25
 Date:
 Frame(HH:MM:SS)



			Gene	ral Information			
Date:		09-14-1	.7	Contractor:		Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.
Pipe Suppor	rt Anchor:	E-4 (E-7	1 / E71B)	Water Depth (1	ft):		
Longitude:				Latitude:			N
			ROV Visu	ual Inspection Lo	og		
		(E/W of pipe	sit Description pe, travelling N/S)		Video Log (start/end) 24:57		Video Reference (hh:mm:ss) 14:00:43
Inspect tro		m South to North	1	40:46		14:16:33	
			ROV Visua	I Inspection Res	ults		
Feature Number		of Feature be support)	Visual Cla	Visual Classification of Fe			Video Reference (hh:mm:ss)
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)		



the lake floor: □YES ⊠NO	(ie. partially buried, fu		Fully suspended
	Comments/Issu	ues/Discussion	
There were no holidays, areas o anchor	f interest, or other	unusual characteristic	s observed around this
///			
	uro.		12/12/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-14-17

Frame(HH:MM:SS)

14:04:08

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-14-17

Frame(HH:MM:SS)

14:01:56

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

C	\sim	m	m	Δ	nt	٠.
	U			.		

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 14:11:29
 Date:
 Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-14-17		Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-5 (E-7	5 (E-71B / E72) Water Depth (fi					
Longitude:				Latitude:				
			ROV Visu	ual Inspection L	og			
			pe, travelling N/S)		Video Log (start/end) 41:20		Video Reference (hh:mm:ss) 14:17:06	
Inspect fro			n South to North	1	59:4		14:17:06	
					33.4	<u> </u>	14.00.02	
	·		ROV Visua	I Inspection Res	sults			
Feature	Location of	of Feature	Viewel Cl	eccification of F		,	Video Reference	
Number	(w.r.t. pipe	support)	Visual Cia	assification of F	eature		(hh:mm:ss)	
1	12:00 on Pip approx. 5' so anchor		☐ Area of Inter☒ Deposit	rest □Holiday □Other	(bare metal)			
2	9:00 on pipe 5' North of a			rest □Holiday □Other	(bare metal)			
3	9:00 on pipe 10' north of			rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
_	oating obser		Pipe Location v	w.r.t. Lake Floor:			Fully Suspended	
the lake floor: ⊠YES ⊠NO			(ie. partially buried, fully suspended)				i dily Susperided	







ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 14:20:44
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 14:21:47
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-14-17
 Frame(HH:MM:SS)
 14:28:26
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Frame(HH:MM:SS)

14:22:16

Feature #2

Date:

9-14-17

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-14-17 Frame(HH:MM:SS) 14:31:17 Date: 9-14-17 Frame(HH:MM:SS) 14:30:46



ROV Inspection Form for L5 Straits of Mackinac



For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







			Gene	ral Information				
Date:		9-18-17	,	Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#:		200089	90	ROV Operator	ROV Operator:		Brian H.	
Pipe Suppor	t Anchor:	E-6 (E-2	5A / E-25B)	Water Depth (1	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description e, travelling N/S)	Video (start/e	end)	Video Reference (hh:mm:ss)		
			spect South to N	North	Video 1 –		9:19:02	
					Video 1 –	0:34:43	9:44:15	
			ROV Visua	l Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended		
Comments/Issues/Discussion					
There were no holidays, area's canchor.	of interest, or any o	ther unusual characte	eristics observed around this		
and on.					
113-	_				
Contractor Signatu	re	1	2/12/2017 Date		
John Latter Signata	· ·				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 9:23:42 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 9:25:21 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

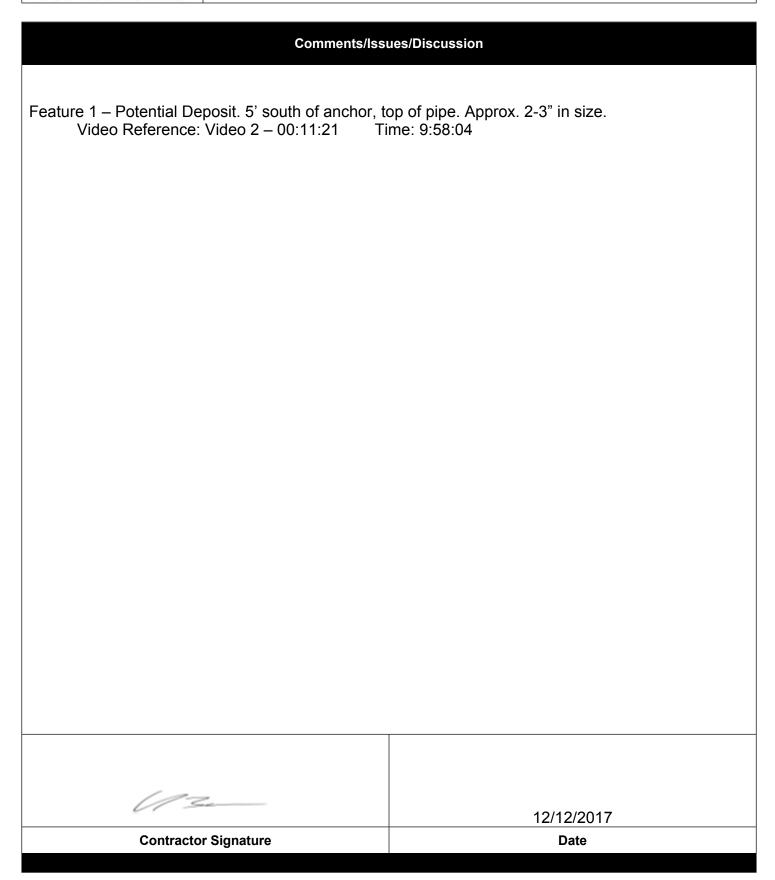


Date: 9-18-17 | Frame(HH:MM:SS) | 9:39:09 | Date: | Frame(HH:MM:SS)



	General Information							
Date:		9-18-17	•	Contractor:		Ballard Marine Co		
AFE / W.O.#:	<u> </u>	200089	90	ROV Operator	:	Bria	an H.	_
Pipe Suppor	t Anchor:	E-7 (E-2	3A South / E-	Water Depth (1				_
		23A No		. ,	•			
Longitude:			Latitude:					
			ROV Visi	ual Inspection Lo	og			
		ROV Transi	t Description		Video I	00	Video Reference	
			e, travelling N/S)		(start/e		(hh:mm:ss)	
		, , , , , , , , , , , , , , , , , , , ,	<u> </u>		Video 2 – 0		9:52:45	
		In	spect South to I	North	Video 2 – 0	0:39:36	10:25:09	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature				,	Video Reference	
Number		e support)	Visual CI	Visual Classification of Feature			(hh:mm:ss)	
4	5' South, T			rest □Holiday (bare metal)		0.59.04	
1			□ Deposit	□Other	<i>,</i>		9:58:04	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	• `	bare metal)			
			☐ Deposit	Other				_
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other	In a second at 10			
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other	hara matal)			
			☐ Area of Inter☐ Deposit	rest ⊟Holiday (□Other	bare metal)			
<u> </u>			☐ Deposit		bare metal)			_
			☐ Deposit	□Other	baie ilielai)			
Dislodaed c	oating obse	erved on	•	w.r.t. Lake Floor:				_
Dislodged coating observed on the lake floor: □YES ⊠NO			(ie. partially buried, fully suspended)				Fully suspended	







ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 9:53:22 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: Frame(HH:MM:SS) Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Frame(HH:MM:SS)



Comments:

Date:

9-18-17

10:07:23

Date: 9-18-17

Frame(HH:MM:SS)

10:25:06



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-18-17

Frame(HH:MM:SS)

9:58:48

Date: 9-18-17

Frame(HH:MM:SS)

9:59:26



			Gene	ral Information				
Date:		9-18-17	1	Contractor:		Ballard Marine Co		
AFE / W.O.#:	<u> </u>	200089	0008990 ROV Ope		:	Bri	an H.	
Pipe Suppor	t Anchor:	E-8 (E-2	3A North –	Water Depth (1	ft):			
		E23B Sc	outh)		•			
Longitude:			Latitude:					
	ROV Visual Inspection Log				og			
		ROV Trans	it Description	-	Video Lo	^	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
					Video 2 – 0:4	<u>, </u>	10:26:30	
		Inspect Sou	uth to North		Video 2 – 1:0	1:59	10:47:32	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature				,	Video Reference	
Number		pe support)	Visual Cl	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other	, j			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□ Other	h - n - n - t - 1)			
			☐ Area of Inter	rest ⊔Holiday (□Other	bare metal)			
			☐ Deposit☐ Area of Inter		bare metal)			
			☐ Area of filter	□ Other	baie metai)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	23.0 (110001)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	,			
Dislodged c	oating obs	erved on	•	w.r.t. Lake Floor:			Fully suspended	
the lake floo	r: □YES	⊠NO	(ie. partially buried, fully suspended)				i uily suspellueu	



Comments/Issu	Comments/Issues/Discussion						
There were no holidays, area's of interest, or other	unusual characteristics observed at this anchor.						
013-	12/12/2017						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 10:27:49 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 10:27:24 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 10:39:14 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-18-17	,	Contractor:			Ballard Marine Co	
AFE / W.O.#:	<u> </u>	200089	90	ROV Operator			an H.	_
Pipe Suppor	t Anchor:	E-9 (E-2	3B South / E-	Water Depth (1				_
	23B N		rth		•			
Longitude:			Latitude:					
ROV Visual Inspection Log					og			
		ROV Trans	it Description		Video Lo	a	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
					Video 2 – 1:0	<u> </u>	10:50:37	
		Inspect Soi	uth to North		Video 2 – 1:2	29:52	11:15:25	
			ROV Visua	I Inspection Res	ults			
Feature	Location	n of Feature				,	Video Reference	
Number		pe support)	Visual Cl	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				_
			☐ Area of Inter	rest ⊔Holiday (□Other	bare metal)			
			☐ Deposit		hara matal)			_
			☐ Area of Inter☐ Deposit	rest ⊔Holiday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□ Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
Dislodged c	oating obs	erved on	Pipe Location	w.r.t. Lake Floor:			Fully suspended	
the lake floo	r: □YES	⊠NO	(ie. partially buried, fully suspended)				i ully susperiued	



Comments/Iss	Comments/Issues/Discussion						
There were no holidays, areas of interest, or unusu	al characteristics observed at this anchor.						
013-	12/12/2017						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:51:44 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 10:51:26 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 11:14:44 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-18-17		Contractor:		Bal	lard Marine Co	_
AFE / W.O.#	:	200089	990 ROV Operator:		r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-10 (E-	-28A South – Water Depth (ft		ft):			
		E28A No	orth)					
Longitude:				Latitude:				
			ROV Visu	ual Inspection L	og			
ROV Trans		OV Transi	t Description	Video	Log	Video Reference		
	(E	E/W of pipe	e, travelling N/S)		(start/end)		(hh:mm:ss)	
	Ir	ıspect Sou	uth to North		Video 3 –		11:39:41	
					Video 3 –	0:34:35	12:10:20	
			DOV Views	Linementian Dec				
			ROV VISUA	I Inspection Res	suits			
Feature	Location of		Visual Cla	assification of F	eature	•	Video Reference	
Number	(w.r.t. pipe				4		(hh:mm:ss)	
1	0-10'south, to pipe	op nan oi	⊠ Area of Inter	,	(bare metal)		11:44:16	
	0-10' north, top half of pipe		☐ Deposit ☐ Area of Inter	□Other	(hara matal)			
2			□ Deposit	est ⊟⊓ollday (□Other	(bare metal)	11:53:59		
	1' North, top of pipe		☐ Area of Inter		(bare metal)			
3			☑ Area of inters☑ Deposit	□ Other	(bare metal)		11:59:32	
_	10' North, top	p of pipe	☐ Area of Inter		(bare metal)		40.04.00	
4			□ Deposit	□Other	(Sai S illotai)		12:01:30	
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other	` ,			
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	•	(bare metal)			
			☐ Deposit	Other	(h a			
			☐ Area of Inter☐ Deposit	est ⊟Holiday (□Other	(bare metal)			
			☐ Area of Inter		(bare metal)			
			☐ Deposit	est ⊟⊓oliday (□Other	(Daie Illetai)			
			☐ Area of Inter		(bare metal)			
			□ Deposit	□Other	(23.0 1110001)			
			☐ Area of Inter		(bare metal)			
			☐ Deposit	□Other	· ,			
Dislodged c	oating observ	ed on	Pipe Location v	w.r.t. Lake Floor:			Fully Suspended	
the lake floor: □YES ⊠NO			(ie. partially burie	ed, fully suspende		rany Gusperideu		



ROV Inspection Form for L5 Straits of Mackinac

Comments/Issues/Discussion

Feature 1: Possible dislodged coating on South side of anchor. 0-10' south of anchor from 9 to 3o'clock position on pipe(top of pipe)

Video Reference: Video 3 – 0:08:31 Time: 11:44:16

Feature 2: Possible dislodged coating on North side of anchor. 0-10' North of anchor from 9 to

4o'clock position on pipe (top and east side of pipe)

Video Reference: Video 3 – 0:18:11 Time: 11:53:59

Feature 3: Potential deposit. 1' North of Anchor, at 12 o'clock position. 2 or 3 spots, each

approx. 1"-2" diameter.

Video Reference: Video 3 – 0:23:47 Time: 11:59:32

Feature 4: Potential deposit. 10' North of anchor, at 12 o'clock position. Approx. 1-2" in

diameter.

Contractor Signature	Date
013	12/12/2017



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 11:40:44 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 11:43:25 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 | Frame(HH:MM:SS) | 12:11:01

Date: 9-18-17 | Frame

Frame(HH:MM:SS)

12:09:59



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-18-17

Frame(HH:MM:SS)

11:44:16

Date:

Frame(HH:MM:SS)

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9

9-18-17

Frame(HH:MM:SS)

11:59:27

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac



For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/18/2017 12:00:01 PM E-28A South / E-28A North Гетр: 57.0

Date:

9-18-17

Frame(HH:MM:SS)

11:59:46

Date:

9-18-17

Frame(HH:MM:SS)

12:00:01

Feature #4

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-18-17

Frame(HH:MM:SS)

12:03:41

Date:

9-18-17

Frame(HH:MM:SS)

12:01:22



General Information									
Date: 9-18-17		,	Contractor:	Contractor:		Ballard Marine Co			
AFE / W.O.#: 2000899		90	ROV Operator	:	Bri	Brian H.			
		28A North /	Water Depth (Vater Depth (ft):					
E28B)									
Longitude:				Latitude:					
ROV Visual Inspection Log									
ROV Trans			t Description		Video Log		Video Reference		
(E/W of pipe		e, travelling N/S)		(start/end)		(hh:mm:ss)			
Inspect Sou		uth to North		Video 3 – 0:36:52		12:12:38			
mspeet cet				Video 3 – 0:57:58		12:33:43			
ROV Visual Inspection Results									
Feature Location of Feature			Visual Classification of Feature		eature	Video Reference			
Number	(w.r.t. pip	oe support)	t)				(hh:mm:ss)		
			☐ Area of Inter☐ Deposit	est ⊔Holiday (□Other	bare metal)				
			☐ Deposit		bare metal)				
			☐ Deposit	□Other	bare metal)				
			☐ Area of Inter		bare metal)				
			☐ Deposit	□ Other	bare metal)				
			☐ Area of Inter		bare metal)				
			☐ Deposit	□Other	,				
			☐ Area of Inter	est □Holiday (bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	rest □Holiday (bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	, ,	bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	, ,	bare metal)				
			☐ Deposit	□Other	hone westell				
			☐ Area of Inter☐ Deposit	rest ⊟Holiday (□Other	bare metal)				
			☐ Area of Inter		bare metal)				
			☐ Deposit	□Other	bare metal)				
			☐ Area of Inter		bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	rest □Holiday (bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	rest □Holiday (bare metal)				
			☐ Deposit	□Other					
Dislodged coating observed on		Pipe Location w.r.t. Lake Floor:				Fully Suspended			
the lake floor: □YES ⊠NO		(ie. partially buried, fully suspended)) I			



Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusu	al characteristics observed around this anchor						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
013-	12/12/2017						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 12:14:04 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 12:13:36 | Date: | Frame(HH:MM:SS) |



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 | Frame(HH:MM:SS) | 12:24:18 | Date: 9-18-17 | Frame(HH:MM:SS) | 12:27:41



			Gene	ral Information				
Date:		9-18-17	1	Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	rt Anchor:	E-12 (E-	30A / E-30B)	Water Depth (f	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description , travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		Inspect Sou	uth to North		Video 3 –		12:42:47	
					Video 3 –	1:29:34	13:05:20	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature e support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
1	25' South, east side			est □Holiday (□Other	bare metal)		12:44:02	
2	20' South, west	top and		est □Holiday (□Other	bare metal)		12:53:04	
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			



the lake floor: □YES ⊠NO	(ie. partially buried, fu		Fully Suspended					
Comments/Issues/Discussion								
Feature 1: Possible dislodged coating. Approx. 25' south of anchor at east and top of pipe. Video Reference: Video 3 – 1:08:10 Time: 12:44:02								
Fature 2: Possible dislodged coating. Approx. 20' south of anchor at top and west of pipe. Video Reference: Video 3 – 1:17:18 Time: 12:53:04								
013		1	2/12/2017					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 12:46:43 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 | Frame(HH:MM:SS) | 12:51:03 | Date: 9-18-17 | Frame(HH:MM:SS) | 13:04:59



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 12:56:54 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-18-17

Frame(HH:MM:SS)

12:46:10

Date: 9-18-17

Frame(HH:MM:SS)

12:46:16

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-

9-18-17

Frame(HH:MM:SS)

12:53:15

Date:

Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-18-17	,	Contractor:		Bal	lard Marine Co	
AFE / W.O.#		200089		ROV Operator	"		an H.	
Pipe Suppor	t Anchor:	E-13 (E-	35A / E35B)	Water Depth (1	ft):			
Longitude:				Latitude:	,			
			ROV Visu	ual Inspection Lo	og			
			t Description e, travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		nspect Sou	uth to North		Video 4 –		13:15:15	
					Video 4 –	0:28:50	13:41:15	
			ROV Visua	I Inspection Res	ults			
Feature Number	Location of (w.r.t. pipe		Visual Cl	assification of F	eature	,	Video Reference (hh:mm:ss)	
1	10-15' South			rest □Holiday (□Other	bare metal)		13:17:15	
2	15' south, to	op of pipe	☐ Area of Inter ☑ Deposit	rest □Holiday (□Other	bare metal)		13:23:52	
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO								
Comments/Issues/Discussion								
Feature 1: Possible dislodged coating. South side of anchor, starting approx 10' and continuing to 20' south. Various spots on top half of pipe. Video Reference: Video 4 – 0:04:51 Time: 13:17:15								
Feature 2: Potential deposit 15' south of anchor on top of pipe. Approx. 2"x2" in size. Video Reference: Video 4 – 0:11:28 Time: 13:23:52								
W3-		,	12/12/2017					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 13:26:06 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 13:41:04 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 Frame(HH:MM:SS) 13:41:14 Date: 9-18-17 Frame(HH:MM:SS) 13:33:19



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-18-17

Frame(HH:MM:SS)

13:17:13

Date:

Frame(HH:MM:SS)

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 Frame(HH:MM:SS)

13:24:12

9/18/2017 1:26:40 PM E-35A / E35 B Temp: 61.1 °F

Date: 9-18-17 | Frame(H

Frame(HH:MM:SS)

13:26:40



General Information							
Date:		09/18/2	2017	Contractor:		Ballard Marine Co	
AFE / W.O.#:		200089		ROV Operator	:	Bri	an H.
Pipe Suppor	t Anchor:	E-14 (E-	-34A / E-34B	Water Depth (1	ft):		
		South)			•		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
	D.	OV Transi		•			Video Reference
			it Description e, travelling N/S)		Video L (start/er		(hh:mm:ss)
	,		<u> </u>		Video 5 – 0		15:08:03
	In	spect Sou	uth to North		Video 5 – 0		15:30:45
			ROV Visua	I Inspection Res	ults		
Feature	Location of	Feature				,	Video Reference
Number	(w.r.t. pipe s		Visual Cl	assification of F	eature		(hh:mm:ss)
4	10' south, e	ast side		est □Holiday (bare metal)		15:12:16
1			☐ Deposit	□Other			15.12.10
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	Other			
			☐ Area of Inter	est ⊔Holiday (□Other	bare metal)		
			☐ Deposit☐ Area of Inter		hare motel)		
			☐ Area of filter	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	-3.5 motor)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	,		
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
_	oating observ			w.r.t. Lake Floor:			Fully Suspended
the lake floo	r: ⊔YES ⊠	NO	∣ (ie. partially buri	ed, fully suspended	d)		•



Comments/Issues/Discussion							
Feature 1: Possible dislodged coating, 10' south of anchor, east side, approx. 4:00 position Video Reference: Video 5 – 0:06:08 Time: 15:12:16							
Contractor Signature	12/12/2017 Date						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: | 15:15:01 | Frame(HH:MM:SS) | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 15:14:44 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 Frame(HH:MM:SS) 15:30:04

Date: 9-18-17

Frame(HH:MM:SS)

15:30:09







General Information							
Date:		09/18/	09/18/2017 Contractor :			Ba	llard Marine Co
AFE / W.O.#	:	200089		ROV Operator	r:	Bri	an H.
Pipe Suppor	rt Anchor:	E-15 (E-	-34B South / E-	Water Depth ((ft):		
		34B No	rth)				
Longitude:				Latitude:			
			ROV Visua	al Inspection L	og		
		ROV Trans	it Description		Video	Log	Video Reference
			e, travelling N/S)		(start/e		(hh:mm:ss)
		Inspect So	uth to North		Video 5 –	0:30:03	15:36:02
		пізресі оо			Video 5 –	0:53:01	15:59:00
			DOV Views	lasas etisas Dec			
			ROV VISUAI	Inspection Res	suits		
Feature		ation of			. ,	,	Video Reference
Number		ature	Visual Cla	ssification of F	eature		(hh:mm:ss)
	(w.r.t. pip	e support)	□ Area of Inters		/hara		
			☐ Area of Interemental) ☐ Depo	,	Other		
			☐ Area of Intere				
			metal) □ Depo	,	Other		
			☐ Area of Intere				
			metal) \square Depo	,	Other		
			☐ Area of Intere				
			metal) \square Depo	,	Other		
			☐ Area of Intere				
			metal) \square Depo	,	Other		
			☐ Area of Intere				
			metal) □ Depo	•	Other		
			☐ Area of Intere				
			metal) □ Depo	•	Other		
			☐ Area of Intere				
			metal) □ Depo	,	Other		
			☐ Area of Intere		(bare		
			metal) 🗆 Depo	-	Other		
			☐ Area of Intere	est □Holiday	(bare		
			metal) 🗆 Depo	osit 🗆	Other		
			☐ Area of Intere	•	(bare		
			metal) 🗆 Depo	osit 🗆	Other		
			☐ Area of Intere	est □Holiday	(bare		
			metal) 🗆 Depo	osit 🗆	Other		
			☐ Area of Intere	,	`		
		_	metal) 🗆 Depo		Other		
Dislodged c	_		Pipe Location w				12" off botom
the lake floor: □YES ⊠NO		⊠NO	(ie. partially burie	d, fully suspende	ed)		



Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusual charcteristics observed at this anchor.							
013	12/12/2017						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 15:36:54 | Date: | Frame(HH:MM:SS)

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 15:58:12 | Date: | Frame(HH:MM:SS)



General Information							
Date:		09/18/2	2017	Contractor:		Ballard Marine Co	
AFE / W.O.#:	<u> </u>	200089		ROV Operator	••		an H.
Pipe Suppor		E-16 (E-	-32A-A / E-32A	Water Depth (1			
		South)	,	. `	,		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	oq		
		DOV Tropo		•		Lan	Video Reference
			it Description e, travelling N/S)		Video (start/e		(hh:mm:ss)
					Video 5 –		16:04:21
		Inspect Sou	uth to North		Video 5 –		16:21:20
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature				,	Video Reference
Number		e support)	Visual Cl	assification of F	eature		(hh:mm:ss)
		, , ,	☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	<i>,</i> ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	<i>,</i> ,	bare metal)		
			☐ Deposit	Other	, , ,		
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other	hara matal)		
			☐ Area of Inter☐ Deposit	est ⊔Hollday (□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	,		
		<u> </u>	☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
Dislodged c	_	erved on	•	w.r.t. Lake Floor:			Partially Buried
the lake floor: □YES ⊠NO			(ie. partially burie	ed, fully suspende	d)		i diddiy bulled



Comments/Iss	Comments/Issues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
Contractor Signature	12/12/2017 Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/18/2017 4:09:05 PM E-32A-A / E32A South

Frame(HH:MM:SS)

16:09:02

9-18-17 Date:

Frame(HH:MM:SS)

16:09:05

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-18-17

Frame(HH:MM:SS)

16:07:18

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

9-18-17

Date:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/18/2017 4:15:00 PIVI E-32A-A / E32A Souiti

Frame(HH:MM:SS)

16:15:00



General Information								
Date:		09/18/2	2017	Contractor	r:		В	allard Marine Co
AFE / W.O.#:	:	200089		ROV Opera	ator:		Brian H.	
Pipe Suppor	t Anchor:	E-17 (E-	-32A South /	Water Dep	th (ft)):		
		E32-A N	lorth)					
Longitude:				Latitude:				
			ROV Visi	ual Inspectio	n Loç	9		
	R	OV Transi	it Description			Video	Log	Video Reference
	(E	E/W of pipe	e, travelling N/S)			(start/		(hh:mm:ss)
	Ir	nspect Soi	uth to North			Video 5-		16:22:11
						Video 5-	1:35:50	16:41:51
			20111					
			ROV Visua	I Inspection	Resu	Its		
Feature	Location o	f Feature	Visual Cl	assification of	of Fea	ature		Video Reference
Number	(w.r.t. pipe							(hh:mm:ss)
1	10' south at	east of			• `	are metal)		16:26:46
	pipe		☐ Deposit	□Othe				
			☐ Area of Inter		• •	are metal)		
			☐ Deposit	□Othe				
			☐ Area of Inter		• •	are metal)		
			☐ Deposit	□Othe				
			☐ Area of Inter	rest ⊔Holld □Othe	• '	are metal)		
			☐ Deposit☐ Area of Inter			oro motal)		
			☐ Area of finter	iesi ⊟⊓olid ⊟Othe	• •	are metal)		
			☐ Area of Inter			are metal)		
			☐ Deposit	□Othe	• •	are metal)		
			☐ Area of Inter			are metal)		
			☐ Deposit	□Othe	• '			
			☐ Area of Inter	rest □Holid	ay (b	are metal)		
			☐ Deposit	□Othe				
			☐ Area of Inter	rest □Holid	ay (b	are metal)		
			☐ Deposit	□Othe	r			
			☐ Area of Inter		• •	are metal)		
			☐ Deposit	□Othe	r			
			☐ Area of Inter		• •	are metal)		
			☐ Deposit	□Othe				
			☐ Area of Inter		• .	are metal)		
<u> </u>			☐ Deposit	□Othe				
			☐ Area of Inter		• .	are metal)		
Dislodged o	 oating observ	ved on	☐ Deposit	□Othe				
_	r: DYES 🗵		Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)				Fully Suspended	



Comments/Issues/Discussion					
Feature 1: Possible dislodged coating, no biota, 3"	x 5", 10' south of anchor, East side of pipe				
013-	12/12/2017				
Contractor Signature	Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 16:24:15 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 16:27:49 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-18-17 | Frame(HH:MM:SS) | 16:34:43 | Date: 9-18-17 | Frame(HH:MM:SS) | 16:37:19



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 16:26:04 | Date: | Frame(HH:MM:SS)



General Information							
Date:	09/18/2017		017 Contractor:		Bal	lard Marine Co	
AFE / W.O.#:	<u> </u>	200089		ROV Operator	••	Bri	an H.
Pipe Suppor	t Anchor:	E-18 (E-	32A North / E-	Water Depth (1	ft):		
		32B Sou	ıth)		•		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
		ROV Transi	t Description	Description			Video Reference
			e, travelling N/S)		Video Log (start/end)		(hh:mm:ss)
		, , ,	•		Video 5 – 1:38:02		16:44:00
		inspect Sot	th to North		Video 5 – 1:53:31		16:59:30
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature	Warral Ol			,	Video Reference
Number	(w.r.t. pip	e support)	Visual Cia	assification of F	eature		(hh:mm:ss)
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter) ((bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	• ((bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	Other			
			☐ Area of Inter	• `	bare metal)		
			☐ Deposit	□ Other	(hara matal)		
			☐ Area of Inter☐ Deposit	est ⊟⊓oliday (⊟Other	(bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	est ⊟⊓ollday (□Other	Daie ilietai)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			□ Deposit	□Other			
Dislodged co	oating obs	erved on		w.r.t. Lake Floor:			Fully Supponded
the lake floor: □YES ⊠NO		(ie. partially buried, fully suspended)				Fully Suspended	



Comments/Issues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.						
	12/12/2017					
Contractor Signature	Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 16:47:40 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 16:58:55 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

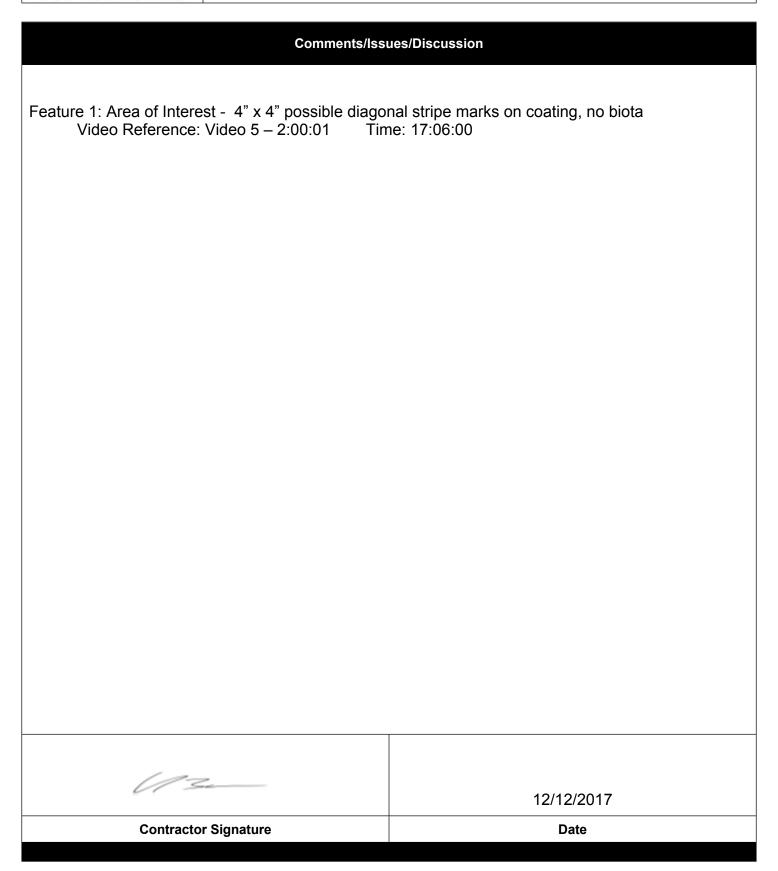


Date: 9-18-17 | Frame(HH:MM:SS) | 16:53:34 | Date: | Frame(HH:MM:SS)



General Information								
Date:	ate: 09-18-2017		017	Contractor:			Ballard Marine Co	
AFE / W.O.#	•	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	rt Anchor:	E-19 (E- 32B Noi	32B South / E-	Water Depth (ft):			
Longitude:		32B NO		Latitude:				_
			DOV View					
		DOV Torres		ual Inspection Lo			Video Defenses	
			it Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)	
		th to North		Video 5 - 1:56:04		17:02:03		
				un to North		11:53	17:17:51	_
								_
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature				Video Reference		
Number	(w.r.t. pipe		Visual Cla	assification of F	eature		(hh:mm:ss)	
1	6' south on pipe	west of		est □Holiday (□Other	bare metal)		17:06:00	_
			☐ Deposit		bare metal)			-
			☐ Deposit	est ⊟⊓oliday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□Other	,			
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				_
			☐ Area of Inter		bare metal)			
			☐ Deposit☐ Area of Inter	□ Other	hare metal)			-
			☐ Deposit	est ⊟Holiday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□Other	<u> </u>			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				_
			☐ Area of Inter	• `	bare metal)			
			☐ Deposit☐ Area of Inter	□Other	bare metal)			_
			☐ Deposit	est ⊟noliday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				_
			☐ Area of Inter	, ,	bare metal)			
Dialadad			☐ Deposit	Other				_
Dislodged coating observed on		•	Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)			Fully Buried		
the lake floor: □YES ⊠NO		(ie. partially bulle	zu, iuliy susperide	u)				







ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/18/2017 5:03:37 PM E-32B South / E-32B Horth Temp: 56.0 °F

Date: 9-1

9-18-17

Frame(HH:MM:SS)

17:03:27

Date: 9-18

9-18-17

Frame(HH:MM:SS)

17:03:37

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







Overall North Affected Area

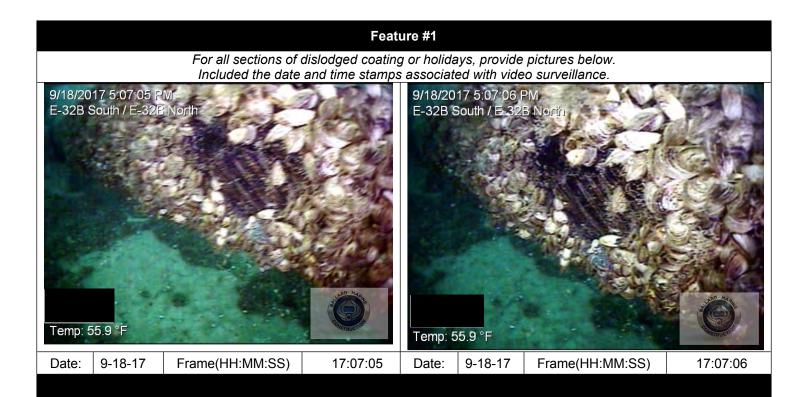
For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 Frame(HH:MM:SS) 17:17:14

Date: Frame(HH:MM:SS)







			Genei	ral Information				
Date:		09/18/2	2017	Contractor:	Ballard Marine Co			
AFE / W.O.#	:	200089	90	ROV Operator	1	Bri	an H.	
Pipe Suppo	rt Anchor:	E-20 (E-	39A / E-39B)	Water Depth (ft):			
Longitude:				Latitude:				
			ROV Visu	ial Inspection L	og			
			it Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss) 17:22:01	
		Inspect Sou	ıth to North		Video 5 – Video 5 –		17:39:35	-
					Video 0 -	2.00.00	17.00.00	
			ROV Visua	Inspection Res	sults			
Feature	Location	of Feature	Viewel Cla	ocification of F		,	Video Reference	
Number		e support)	Visual Cia	assification of F	eature		(hh:mm:ss)	
1	20' south, v	west side		est □Holiday (□Other	(bare metal)		17:28:00	
			☐ Area of Interest☐ Deposit	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter		(bare metal)			
			☐ Area of Inter		(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			
			☐ Area of Inter	est □Holiday (□Other	(bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended				
	Comments/Issu	ues/Discussion					
Feature 1: Possible dislodged coating, 4"x4", 20' south of anchor on west side of pipe							
3	3 , ,						
/							
113-		1	2/12/2017				
Contractor Signatu	re		Date				



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 17:24:27 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 | Frame(HH:MM:SS) | 17:33:09 | Date: | Frame(HH:MM:SS)



Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-18-17 Frame(HH:MM:SS) 17:34:27

Date: | F

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-18-17

Frame(HH:MM:SS)

17:28:02

Date:

Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-17	,	Contractor:		Bal	lard Marine Co	
AFE / W.O.#:	:	200089		ROV Operator	:		an H.	
Pipe Suppor	t Anchor:	E-21 (E-	40A / E-40B)	Water Depth (f				
Longitude:				Latitude:	•			
			ROV Visu	ual Inspection Lo	og			
			it Description e, travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		Inspect Sou	uth to North		Video 1 –		9:17:48	
					Video 1 –	0:25:27	9:36:35	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended						
	Comments/Issu	ues/Discussion							
There were no bolidays, areas o	-								
There were no holidays, areas on interest, or unusual characteristics observed around this anchor.									
/									
0/3-			12/12/2017						
Contractor Signatu	re		Date						



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/19/2017 9:26:30 AM E-40A / E-40B Temp: 53.6 °F

Date: 9-19-17 Frame(HH:MM:SS) 9:19:44

Date: 9-19-17 Frame(HH:MM:SS)

9:26:30

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 9:30:53 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 9:36:15
 Date:
 Frame(HH:MM:SS)



			Gene	ral Information			
Date:		9-19-17	1	Contractor:		Bal	lard Marine Co
AFE / W.O.#	:	200089	90	ROV Operator		Bri	an H.
Pipe Suppor	t Anchor:	E-22 (E-	46 / E-45A)	Water Depth (1	ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
			t Description , travelling N/S)		Video (start/	end)	Video Reference (hh:mm:ss)
		Inspect Sou	uth to North		Video 1 –		9:46:00
		ороск сок			Video 1 –	0:50:03	10:01:10
			ROV Visua	I Inspection Res	ults		
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)
		.,	☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu	ues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
113-	_	,	12/12/2017					
Contractor Signatu	ıre		Date					



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 9:50:24 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-19-17 | Frame(HH:MM:SS) | 9:55:00 | Date: 9-19-17 | Frame(HH:MM:SS) | 10:00:41



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:01:06 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-17	,	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	rt Anchor:	E-23 (E-	45A / E-45B)	Water Depth (f	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description e, travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		Inspect Sou	uth to North		Video 1 –		10:02:46	
					Video 1 –	1:09:46	10:20:54	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature e support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
1	5' North, e west sides	ast top		est □Holiday (□Other	bare metal)		10:12:20	
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended			
	Comments/Issu	ues/Discussion				
Feature 1: Possible dislodged coating. 5' North of anchor on east, top, and west side Video Reference: Video 1 – 1:01:14 Time: 10:12:21						
(// z						
Contractor Signatu	re	1	2/12/2017 Date			



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:11:24 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:11:11 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

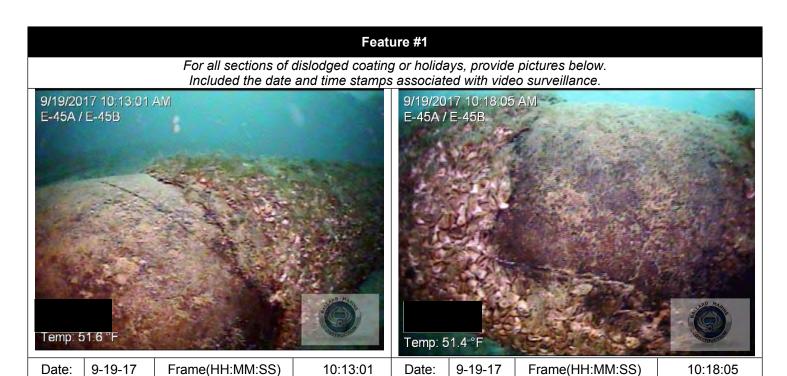
Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 10:15:04
 Date:
 Frame(HH:MM:SS)







General Information							
Date:		9-19-17	,	Contractor:		Ba	llard Marine Co
AFE / W.O.#:	<u> </u>	200089	90	ROV Operator	:	Bri	an H.
Pipe Suppor	t Anchor:	E-24 (E-	-42 South / E-42	Water Depth (1	ft):		
		North)					_
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
		ROV Trans	it Description		Video Lo	α	Video Reference
			e, travelling N/S)		(start/end		(hh:mm:ss)
					Video 1 – 1:	<u> </u>	10:27:19
		Inspect Soi	uth to North		Video 1 – 1:4	11:27	10:52:35
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature	.,,	151 11 5 =		,	Video Reference
Number	(w.r.t. pi	pe support)	Visual Cl	assification of F	eature		(hh:mm:ss)
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□ Other	h o no no - t - !\		
			☐ Area of Inter☐ Deposit	est ⊔Hollday (□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other ⊂			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
Dislodged c	_			w.r.t. Lake Floor:			Fully Suspended
the lake floor: □YES ⊠NO			(ie. partially burie	ed, fully suspended	d)		,



Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
	12/12/2017						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:51:03 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:52:17 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 10:52:18 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-17	1	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	t Anchor:	E-25 (E-	47A / E-47B)	Water Depth (1	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description , travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		Inspect Sou	uth to North		Video 2 –		11:02:30	
					Video 2 –	0:22:20	11:15:50	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			



the lake floor: □YES ⊠NO	(ie. partially buried, fu		Fully Suspended
	Comments/Iss	ues/Discussion	
There were no holidays, areas o	f interest, or unusu	al characteristics obs	erved around this anchor.
113-		1:	2/121/2017
Contractor Signatu	ire		Date



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS)

11:10:07 Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



E-47A / E-47B

Temp: 52.3 °F

9/19/2017 11:15:45 AM

Date: 9-19-17 | Frame(HH:MM:SS) | 11:10:21 | Date: 9-19-17 | Frame(HH:MM:SS) | 11:15:45



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:14:16 | Date: | Frame(HH:MM:SS)



General Information								
Date : 9-19-1		,	Contractor:	ontractor:		Ballard Marine Co		
		200089	90	ROV Operato	r:	Bri	an H.	
		-48A / E-48B Water Depth		(ft):				
Longitude:				Latitude:				
			ROV Visual Inspection Log					
		ROV Trans	it Description		Video L	og	Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
					Video 2 – 0:27:21		11:20:51	
		inspect sol	uth to north		Video 2 - 0:39:54		11:33:25	
			ROV Visual II	spection Res	sults			
	Lac	otion of						
Feature Location of Feature			Visual Classification of Feature			Video Reference		
Number		pe support)	visual Glassification of Feature			(hh:mm:ss)		
			☐ Area of Interes	t □Holiday	(bare			
			metal) 🗆 Depos	sit \Box	Other			
			☐ Area of Interes	st □Holiday	(bare			
			metal) 🗆 Depos	sit 🗆	Other			
			☐ Area of Interes	,	(bare			
			metal) \square Depos	sit 🗆	Other			
			☐ Area of Interes	,	`			
			metal) Depos		Other			
			☐ Area of Interes	,	`			
			metal) Depos		Other			
			☐ Area of Interes	,	•			
			metal) Depos		Other			
			☐ Area of Interest metal) ☐ Depos		Other			
			☐ Area of Interes					
			metal) \square Depos	,	Other			
			☐ Area of Interes					
			metal) Depos	,	Other			
			☐ Area of Interes	t □Holiday	(bare			
			metal) 🗆 Depos	=	Other			
			☐ Area of Interes	st □Holiday	(bare			
			metal) 🗆 Depos	sit 🗆	Other			
			☐ Area of Interes	,	*			
			metal) Depos		Other			
			☐ Area of Interes	,	`			
			metal) \square Depos	sit 🗆	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended			
	Comments/Issu	ues/Discussion				
$^{**}\mbox{NOTE}-\mbox{Video}$ was labeled incorrectly as E-48A / E-47B South. This was noted after completion of the inspection.						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.						
W3-			12/13/17			
Contractor Signatu	ire		Date			



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:21:29 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-19-17 | Frame(HH:MM:SS) | 11:33:09 | Date: 9-19-17 | Frame(HH:MM:SS) | 11:22:02



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:33:20 | Date: | Frame(HH:MM:SS)



General Information								
Date: 9-19-17		7 Contractor:				Ballard Marine Co		
AFE / W.O.#: 200089			ROV Operato	r:		an H.		
Pipe Suppor	t Anchor:	E-27 (E-	-48B South / E-	Water Depth (
		48B No		•	` ,		•	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	sit Description		Video Log		Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
				Video 2 – 0:48:37		11:37:07		
		ilispect 30t	uth to North		Video 2 - 0:59:36		11:53:06	
			ROV Visual	Inspection Res	sulte			
			NOV VISUAI	inspection Res	suits			
Feature Number		ation of Visual Classificati			cation of Feature		Video Reference	
Number	(w.r.t. pip	oe support)				(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	-	`			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo		Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fuly Suspended				
Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
113			12/13/17				
Contractor Signatu	ire		Date				



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:43:00 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:46:25 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 11:48:43 | Date: | Frame(HH:MM:SS)



			Gener	al Information				
Date:		9-19-17	,	Contractor:		Ballard Marine Co		
AFE / W.O.#:	AFE / W.O.#: 2000899			ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:		66A South / E-	Water Depth ((ft):			
		66A No	rth)	1 414 1				
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Lo	og	Video Reference	
		(E/W of pipe	e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect sou	uth to north		Video 3 – 0:		12:08:14	
					Video 3 – 0:	20:34	12:21:28	
			ROV Visual	Inspection Res	sults			
Feature		ation of				,	/ideo Reference	
Number		eature be support)	Visual Cla	ssification of F	eature	(hh:mm:ss)		
	(νν.ι.ι. ριμ	oc support)	☐ Area of Inter	est □Holiday	(hare			
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	-	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	,	`			
			metal) Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) □ Dep □ Area of Inter		Other			
			metal) □ Dep		Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	,	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	-	Other			
			☐ Area of Inter	,	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	*			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep	osit L	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Lake Floor: ully suspended)	Fully Suspended							
	Comments/Issues/Discussion								
There were no holidays, areas of	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
There were no holidays, areas c	interest, or unus	uai characteristics of	oscived around this anchor.						
11-			40/40/47						
			12/13/17						
Contractor Signatu	re		Date						



South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-19-17 Frame(HH:MM:SS) 12:12:04 Date:

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-19-17 Frame(HH:MM:SS) Date: 12:18:06 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 12:18:02 | Date: | Frame(HH:MM:SS)



			Gener	al Information				
Date:	9-19-17		,	Contractor:		Ballard Marine Co		
AFE / W.O.#: 2000899			90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-29 (E- 66B)	-66A North / E-	Water Depth	(ft):			
Longitude:		3327		Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video L	00	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
					Video 3 – 0		12:24:03	
		inspect Soi	uth to North		Video 3 – 0	36:26	12:37:20	
			ROV Visual	Inspection Res	sults			
	Loca	ation of		•				
Feature		ation of	Visual Cla	assification of F	eature	'	/ideo Reference	
Number		pe support)	l loudi on			(hh:mm:ss)		
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit [Other			
			☐ Area of Inter	,	•			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	•			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	•			
			metal) Dep		Other			
			☐ Area of Intermetal) ☐ Dep		(bare]Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) Dep	•	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	•	•			
			metal) 🗆 Dep	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended						
	Comments/Issues/Discussion								
There were no belideve, erose of	of interest or unus	ual abaractaristics ob	poorwood around this another						
There were no holidays, areas of	of interest, or unus	uai characteristics of	served around this anchor.						
11-			40/40/47						
07			12/13/17						
Contractor Signatu	ire		Date						



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 12:24:55

Comments:

9/19/2017 12:32:04 PM

Anchor

Date:

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



E-66A North / E-66B

Temp: 51.6 °F

Frame(HH:MM:SS)

Date: 9-19-17 | Frame(HH:MM:SS) | 12:24:16 | Date: 9-19-17 | Frame(HH:MM:SS) | 12:32:04



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 12:34:25 | Date: | Frame(HH:MM:SS)



			Genei	ral Information			
Date:		9-19-1	7	Contractor:		Balla	ard Marine Co
AFE / W.O.#:		200089	990	ROV Operato	ROV Operator: Brian H.		
Pipe Suppor	t Anchor:	E-30 (E	-56A / E-56B)	Water Depth ((ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection L	og		
			sit Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)
		Inspect Sc	outh to north		Video 3 – 0:44 Video 3 – 0:57		12:45:42 12:58:50
			ROV Visua	I Inspection Res	sults		
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	V	ideo Reference (hh:mm:ss)
			☐ Area of Inter	rest □Holiday	(bare		
			metal) Dep		Other		
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	•	•		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	(bare]Other		
			metal) □ Dep □ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) Dep	,	Other		
			☐ Area of Inter				
			metal) 🗆 Dep	=	Other		
			☐ Area of Inter		(bare		
			metal) Dep	oosit \Box	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	oosit 🗆	Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Inter	,			
			metal) 🗆 Dep		Other		
			☐ Area of Inter	•	,		
			metal) Dep		Other		
			☐ Area of Inter	,	`		
			metal) \square Dep	DOSIT	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully Suspended						
	te floor: □YES ⊠NO (ie. partially buried, fully suspended) Comments/Issues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
112			10/10/17				
Contractor Signatur	* 0		12/13/17				
Contractor Signatu	re		Date				



ROV Inspection Form for L5 Straits of Mackinac

South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 12:49:29 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/19/2017 12:58:29 PM E-56A / E-56B

Date: 9-19-17 | Frame(HH:MM:SS) | 12:58:43 | Date: 9-19-17 | Frame(HH:MM:SS) | 12:58:29



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 12:54:17 | Date: | Frame(HH:MM:SS)



			Genei	ral Information			
Date:	e: 9-19-17 Contract			Contractor:		Ball	ard Marine Co
AFE / W.O.#	•	20008	990	ROV Operato	r:	Bria	n H.
Pipe Suppor	t Anchor:	E-31 (E	E-54A / E-54B)	Water Depth ((ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection L	og		
			sit Description be, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)
		Inspect So	outh to North		Video 3 – 1:03 Video 3 – 1:12		13:04:18 13:13:10
			ROV Visua	I Inspection Res	sults		
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	V	ideo Reference (hh:mm:ss)
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	(bare]Other		
			metal) □ Dep □ Area of Inter				
			metal) \square Dep	•	Other		
			☐ Area of Inter				
			metal) \square Dep	-	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	osit =	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	oosit	Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Inter	,			
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Intermetal) ☐ Dep	,	(bare]Other		
			☐ Area of Inte				
			metal) \square Dep	,	Other		
			☐ Area of Intel		i i		
			metal) Dep	,	Other		
			☐ Area of Inter				
			metal) 🗆 Dep	•	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) \square Dep	oosit 🗆	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended						
	Comments/Issu	ues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.									
0/3		1	2/13/2017						
Contractor Signatu	ire		Date						



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-19-17 Frame(HH:MM:SS)

13:08:14

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17

Frame(HH:MM:SS)

13:13:10

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 13:16:37 | Date: | Frame(HH:MM:SS)



			Gener	ral Info	rmation				
Date:		9-19-17	,	Cont	tractor:		Bal	lard Marine Co	
AFE / W.O.#	:	200089	90	ROV	Operator	r:	Bria	an H.	
Pipe Suppor	rt Anchor:	E-32 (E-	-53A / E-53B)	Wate	er Depth (ft):			
Longitude:				Latit	ude:				
			ROV Visu	ual Insp	pection Lo	og			
		ROV Trans	it Description			Video		Video Reference	
		(E/W of pipe	e, travelling N/S)			(start/e		(hh:mm:ss)	
		Inspect So	uth to North			Video 4 –		13:58:33	
		-				Video 4 –	0:14:54	14:11:41	
			ROV Visual	l Inspe	ction Res	ults			
Feature Number	Fe	ation of eature	Visual Cla	assifica	ation of F	eature	\	/ideo Reference (hh:mm:ss)	
	(w.i.t. pi	pe support)	☐ Area of Inter	roct [□Holiday	(haro			
			metal) \square Dep		-	Other			
			☐ Area of Inter		 □Holiday				
			metal) □ Dep		-	Other			
			☐ Area of Inter		 □Holiday				
			metal) \square Dep		-	Other			
			☐ Area of Inter		□Holiday	(bare			
			metal) 🗆 Dep		-	Other			
			☐ Area of Inter	rest [□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			
			☐ Area of Inter		□Holiday	-			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	`			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	`			
			metal) Dep			Other (bare			
			☐ Area of Intermetal)☐ Dep		□Holiday □	(bare Other			
			☐ Area of Inter		 □Holiday				
			metal) \square Dep		-	Other			
			☐ Area of Inter		 □Holiday				
			metal) □ Dep		-	Other			
			☐ Area of Inter		 □Holiday				
			metal) \square Dep		-	Other			
·			☐ Area of Inter		□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			
			☐ Area of Inter	rest [□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended						
	Comments/Issues/Discussion								
There were no belideve, erose of	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
There were no nondays, areas c	of interest, or unus	uai characteristics of	served around this anchor.						
11-			0/40/0047						
		1	2/13/2017						
Contractor Signatu	re		Date						



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 14:02:20

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:08:18 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:08:24 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-17	1	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	Brian H.	
Pipe Suppor	t Anchor:	E-33 (E-	52A / E-52B)	Water Depth (1	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description , travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)	
		Inspect Sou	uth to North		Video 4 –		14:20:00	
					Video 4 –	0:33:32	14:30:20	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended						
	Comments/Issu	ues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.									
013	-		12/13/17						
Contractor Signatu	re		Date						



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:22:59 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:26:03 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 14:29:26
 Date:
 Frame(HH:MM:SS)



Date				Genera	Information				
Pipe Support Anchor: E-34 (E-49C / E-49B South South E-34 (E-49C / E-49B South E-34 (E-49C / E	Date: 9-19-1		19-17 Contractor:		Ba		Ballard Marine Co		
ROV Visual Inspection Log ROV Transit Description (EW of pipe, travelling N/S) (Start/end)			990	ROV Operato	r:	Bri	an H.		
ROV Visual Inspection Log ROV Transit Description (EW of pipe, travelling N/S) Video Log (start/end) (Inspect South to North Video 4 - 0:37:15 14:34:02 Video 4 - 0:37:15 14:34:02 Video 4 - 0:49:13 14:45:00 Video 4 - 0:49:13 Video 4 - 0:49:	Pipe Suppor	t Anchor:	E-34 (E	-49C / E-49B	Water Depth ((ft):			
ROV Visual Inspection Log ROV Transit Description (E/W of pipe, travelling N/S) Video Log (start/end) Video 4 – 0:37:15 14:34:02			South)					_	
ROV Transit Description (E/W of pipe, travelling N/S) Video 4 - 0:37:15 14:34:02 Inspect South to North Video 4 - 0:49:13 14:45:00 ROV Visual Inspection Results Video 4 - 0:49:13 14:45:00 ROV Visual Inspection Results Video Reference (hh:mm:ss) ROV Visual Inspection Results Video Reference (hh:mm:ss) Rov Visual Classification of Feature (w.r.t. pipe support) Area of Interest metal) Deposit Other Area of Interest metal Deposit Other	Longitude:				Latitude:				
(E/W of pipe, travelling N/S) (start/end) (hh:mm:ss) (video 4 - 0:37:15 14:34:02 video 4 - 0:37:15 14:34:02 video 4 - 0:37:15 14:34:00 video 4 - 0:49:13 14:45:00 video 4 - 0:49:13 video 4 - 0:49:14 vid				ROV Visua	Inspection L	og			
(E/W of pipe, travelling N/S) (start/end) (hh:mm:ss) (video 4 - 0:37:15 14:34:02 video 4 - 0:37:15 14:34:02 video 4 - 0:37:15 14:34:00 video 4 - 0:49:13 14:45:00 video 4 - 0:49:13 video 4 - 0:49:14 vid			ROV Trans	it Description		Video Log		Video Reference	
Inspect South to North			-						
ROV Visual Inspection Results Video Reference (hh:mm:ss)			Inchect Se	-		Video 4 – 0:37	7:15	14:34:02	
Location of Feature (w.r.t. pipe support)			inspect 30	util to North		Video 4 – 0:49	9:13	14:45:00	
Location of Feature (w.r.t. pipe support)									
Location of Feature (w.r.t. pipe support)									
Feature Wisual Classification of Cother Wisual Classification of Pateure Wisual Classification of Cother Wi				ROV Visual I	nspection Res	sults			
Number Visual Classification of Feature (hh:mm:ss) Area of Interest metal) Deposit Other Area of Interest Holiday (bare metal) Deposit Other	Factoria	Loca	ation of					Video Deference	
Area of Interest metal) Deposit Deposit		Fe	ature	Visual Clas	sification of F	eature			
Metal Deposit	- Italiibei	(w.r.t. pip	e support)					(1111.111111.33)	
□ Area of Interest metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other					•	•			
Metal Deposit					-	Other			
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metal)									
Area of Interest metal Deposit Dother					,	,			
metal				· · · · · · · · · · · · · · · · · · ·					
□ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other					,	`			
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metal)									
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□ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other					•	,			
metal)				· · · · · · · · · · · · · · · · · · ·					
□ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other					,	`			
metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other									
☐ Area of Interest ☐ Holiday (bare metal) ☐ Deposit ☐ Other ☐ Area of Interest ☐ Holiday (bare metal) ☐ Deposit ☐ Other					,	`			
metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare metal) □ Deposit □ Other									
☐ Area of Interest ☐ Holiday (bare metal) ☐ Deposit ☐ Other					,	,			
metal) □ Deposit □ Other				· · · · · · · · · · · · · · · · · · ·					
					,	,			



	metal) Deposit	□Other						
Dislodged coating observed on	Pipe Location w.r.t.	Lake Floor:	Fully Suspended					
the lake floor: □YES ⊠NO	(ie. partially buried, fu	ılly suspended)	i dily Suspended					
	Comments/Issu	ies/Discussion						
There were no holidays areas	of interests or unu	sual characteristics o	sheerved around this anchor					
There were no holidays, areas of interests, or unusual characteristics observed around this anchor.								
/								
1/3-			10/10/17					
			12/13/17					
Contractor Signatu	ıre		Date					



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17

Frame(HH:MM:SS)

14:37:01

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS)

14:34:38

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:42:01 | Date: | Frame(HH:MM:SS)



General Information								
Date:		9-19-17	,	Contractor:		Ва	llard Marine Co	
		200089	90	ROV Operator	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-35 (E-	49B South / E-	Water Depth (ft):			
		49B No	rth)					
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
			it Description	Video Log (start/end		Video Reference (hh:mm:ss)		
		(E/W of pipe	pe, travelling N/S)		Video 4 - 0:53:32		14:50:19	
		Inspect sou	ith to north		Video 4 – 1:1		15:08:00	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of eature be support)	Visual Classification of Feature			Video Reference (hh:mm:ss)		
	(☐ Area of Intere	,	(bare Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare]Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	`			
			metal) \square Depo		Other			
			☐ Area of Intere	-	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) □ Depo		Other			
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
Comments/Issues/Discussion								
There were no holidays, areas of interest, or unusual characteristics observed around this anchor								
1/13-								
		1	2/13/2017					
Contractor Signatu	ire		Date					



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:53:53 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 14:59:29 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 15:04:01 | Date: | Frame(HH:MM:SS)



General Information								
Date:		9-19-17	7 Contractor:		B		Ballard Marine Co	
AFE / W.O.#: 200089			ROV Operato	r:		an H.		
Pipe Suppor	t Anchor:	E-36 (E-	-49B North / E-	Water Depth (
		49A Sou	uth)	•	,		•	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description	Video Lo	oa	Video Reference		
			e, travelling N/S)		(start/en		(hh:mm:ss)	
					Video 4 – 1:12:48		15:09:35	
		mspect sot	uth to north		Video 4 – 1:24:50		15:21:37	
			ROV Visual	Inspection Res	sults			
		-4:£						
Feature		ation of ature	Vieual Cla	ssification of F	Spaturo	Video Reference		
Number		pe support)	Visual Ola	Visual Classification of Feature			(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	,	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	-	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	(bare]Other			
			metal) □ Depo					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo		Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu							
There were no holidays, areas of	There are a belief a consequent of the contract of the contrac							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
11-			40/40/47					
			12/13/17					
Contractor Signatu	re		Date					



Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 15:12:48

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-19-17 Date: Frame(HH:MM:SS) 15:16:04 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 15:18:31 | Date: | Frame(HH:MM:SS)



			Genera	al Information				
Date:		9-19-17	,	Contractor:		Ва	llard Marine Co	
AFE / W.O.#		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-37 (E-	49A South / E-	Water Depth ((ft):			
49A No			rth)					
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
			it Description		Video Lo (start/end		Video Reference (hh:mm:ss)	
		(E/w oi pipe	e, travelling N/S)		Video 4 – 1:2	<u>, </u>	15:23:35	
		Inspect Sou	uth to North		Video 4 – 1:4		15:37:51	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of	Visual Cla	ssification of F	eature	,	Video Reference (hh:mm:ss)	
	(w.r.t. pip	oe support)	☐ Area of Intere	•				
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) □ Depo		Other			
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	osit =	Other			
			☐ Area of Intere	•	(bare			
			metal) 🗆 Depo	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended
	Comments/Issu		
There were no helidaye, areas o	of interest or unus	ual characteristics of	econyod at this anchor
There were no holidays, areas of	of interest, of unus	uai characteristics of	oserved at this affolior.
10-			
V/ Se			12/13/17
Contractor Signatu	re		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/19/2017 3:26:24 PM E-49A South / E-49A North

Date: 9-19-17 Frame(HH:MM:SS) 15:28:45

Date: 9-19-17 Frame(HH:MM:SS)

15:26:24

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 15:30:32 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 15:31:07 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-1	.7	Contractor:		Ballard Marine Co		
AFE / W.O.#	•	20008	990	ROV Operato	r:	Bria	n H.	
Pipe Suppor	t Anchor:	E-38 (I	E-61A-A / E-61A)	Water Depth ((ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection L	og			
		sit Description be, travelling N/S)	-			Video Reference (hh:mm:ss)		
		Inspect So	outh to North		Video 4 – 1:50 Video 4 – 2:08		15:47:33 16:05:11	
			ROV Visua	I Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	V	ideo Reference (hh:mm:ss)	
			☐ Area of Inte	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Intermetal) ☐ Dep	•	(bare]Other			
			☐ Area of Inte					
			metal) \square Dep	=	Other			
			☐ Area of Inte					
			metal) □ Dep	,	Other			
			☐ Area of Inte		(bare			
			metal) □ Dep	•	Other			
			☐ Area of Inte	rest □Holiday	(bare			
			metal) 🗆 Dep	oosit	Other			
			☐ Area of Inte	•				
			metal) 🗆 Dep		Other			
			☐ Area of Inte	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inte	,	,			
			metal) Dep		Other			
			☐ Area of Inte	,	`			
			metal) Dep		Other			
			☐ Area of Intermetal) ☐ Dep	,	(bare]Other			
			☐ Area of Inte					
			metal) \square Dep	•	Other			
			☐ Area of Inte					
			metal) Dep	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended
	Comments/Issu	ues/Discussion	
There were no holidays, areas of	of interest, or unus	ual characteristics ob	oserved around this anchor.
*Note: Hydrophone Location			
W3-	_		12/13/17
Contractor Signatu	re		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 15:50:51
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 15:55:01 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-19-17 Frame(HH:MM:SS) 15:57:26 Date: 9-19-17 Frame(HH:MM:SS) 15:55:17



			General	Information				
Date:		9-19-17	,	ontractor:		Ва	llard Marine Co	
AFE / W.O.#		200089	90 F	OV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-39 (E- South)	·61A / E-61B V	Vater Depth ((ft):		I	
Longitude:			Latitude:					
Ü				Inspection L	og			
		ROV Trans	it Description		Video Log	Υ	Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect Sou	uth to North		Video 4 – 2:1		16:07:15	
					Video 4 – 2:2	3:18	16:20:06	
			ROV Visual In	spection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Class	ification of F	eature	,	Video Reference (hh:mm:ss)	
		,	☐ Area of Interes	,	`			
			metal) 🗆 Deposi		Other			
			☐ Area of Interest metal) ☐ Deposition	,	(bare]Other			
			☐ Area of Interes					
			metal) 🗆 Deposi	•	Other			
			☐ Area of Interes	⊟Holiday	(bare			
			metal) 🗆 Depos	t 🗆	Other			
			☐ Area of Interes	,	`			
			metal) 🗆 Deposi		Other			
			☐ Area of Interest metal) ☐ Deposition	,	(bare]Other			
			☐ Area of Interes					
			metal) Deposition	•	Other			
			☐ Area of Interes					
			metal) 🗆 Depos	t 🗀	Other			
			☐ Area of Interes	⊟Holiday	(bare			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	,				
			metal) Deposi		Other			
			☐ Area of Interes	,	`			
			metal) Deposi		Other			
			☐ Area of Interest metal) ☐ Deposition	,	Other			
			☐ Area of Interes					
			metal) \square Deposit	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended
	Comments/Issu		
There were no holidays, areas of	of interest, or unus	ual characteristics of	oserved around this anchor.
113-	_		12/13/17
Contractor Signatu	ire		Date

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 16:13:54 Date:

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:09:54 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:16:54 | Date: | Frame(HH:MM:SS)



			Genera	al Information				
Date:		9-19-17	,	Contractor:		Ва	llard Marine Co	
	AFE / W.O.# : 200089			ROV Operato	r:	Brian H.		
Pipe Support Anchor: E-40 (E-			·61B South / E-	Water Depth (
		61B No	rth)				_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	a	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
		Inspect Sou	uth to North		Video 4 – 2:	25:41	16:22:28	
		mspect 30t	util to North		Video 4 – 2:	39:43	16:36:30	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	•	Video Reference	
Number		e support)				(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit \Box	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit \Box	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit \Box	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	-	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
					201101			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended
	Comments/Issu		
There were no holidays, areas of	of interest, or unus	ual characteristics of	oserved around this anchor.
113-	_		12/13/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 16

16:24:58 Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:25:02 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments	
Committeents	

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:32:02 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		9-19-17	,	Contractor:		Ba	llard Marine Co	
AFE / W.O.#:	<u> </u>	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	t Anchor:	E-41 (E-	-61B North / E-	Water Depth (1	it):			
		61C Sou	uth)				_	
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
		ROV Trans	it Description		Video Lo	<u>п</u>	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
			<u> </u>		Video 4 – 2:4	2:14	16:39:01	
		Inspect sou	ith to north		Video 4 – 2:4	9:40	16:49:40	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature	Viewel Cl	occification of F	4	,	Video Reference	_
Number	(w.r.t. pip	pe support)	Visual Ci	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□ Other	h			
			☐ Area of Inter☐ Deposit	□ Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□ Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
Dieledered -	ootine - b -	on to d o :-	☐ Deposit	Other				
Dislodged co	_			w.r.t. Lake Floor:	4/		Fully Suspended	
the lake floo	ı. ⊔1⊏5	\boxtimes NO	i (ie. partially buff	ed, fully suspended	<i>u)</i>			



Comments/Issu	ues/Discussion
There were no holidays, areas of interest, or unusu	al characteristics observed around this anchor.
(13z-	12/13/17
Contractor Signature	Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:41:11 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 16:46:38 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 16:41:30
 Date:
 Frame(HH:MM:SS)



			Genera	al Information				
Date:		9-19-17	7	Contractor:		Ba	llard Marine Co	
AFE / W.O.#:	•	200089				Brian H.		
Pipe Suppor	t Anchor:	E-42 (E-	-61C South / E-	Water Depth ((ft):			
61C No			rth)				_	
Longitude:	ngitude:			Latitude:				
			ROV Visua	al Inspection L	og			
			it Description e, travelling N/S)		Video Lo (start/end		Video Reference (hh:mm:ss)	
			uth to North		Video 4 – 2:5	4:18	16:51:06	
		mapect out			Video 5 – 0:0	3:18	17:03:40	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Cla	ssification of F	eature	,	Video Reference (hh:mm:ss)	
	(**************************************		☐ Area of Intere	•	(bare Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	=	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) □ Depo		Other			
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	,	Other			
			☐ Area of Intere	est □Holiday	(bare			<u></u>
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo	osit \square	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu	ues/Discussion						
Note: Video 4 was accidentally stopped, however, Video 5 picks up immediately where Video 4 left off to finish inspection around this anchor.								
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
113-			12/13/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 Frame(HH:MM:SS) 16:53:48

3:48 Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-19-17
 Frame(HH:MM:SS)
 16:53:58
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-19-17 | Frame(HH:MM:SS) | 17:00:45 | Date: | Frame(HH:MM:SS)



General Information								
Date:		09/20/2017 Contractor :			Ballard Marine Co			
AFE / W.O.#:	AFE / W.O.#: 20008990			ROV Operator: Brian H.			an H.	
Pipe Suppor	t Anchor:	E-43 (E-	22A / E-22B)	Water Depth (ft):			
Longitude:				Latitude:				
ROV Visual Inspection Log								
			it Description e, travelling N/S)	Video (start/e		Video Reference (hh:mm:ss)		
					Video 1 –	00:08:20	08:57:55	
Inspect South to North				Video 1 –	00:27:55	09:17:30		
			ROV Visua	I Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Cl	assification of F	eature	,	Video Reference (hh:mm:ss)	
1	South of a	inchor,	☐ Area of Inter☐ Deposit	rest ⊠Holiday □Other	(bare metal)		09:02:16	
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □Other	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □	(bare metal)			
			☐ Area of Inter☐ Deposit	rest □Holiday □	(bare metal)			
			☐ Area of Inter☐ Deposit		(bare metal)			
			☐ Area of Inter☐ Deposit		(bare metal)			
			☐ Area of Inter☐ Deposit		(bare metal)			
			☐ Area of Inter☐ Deposit		(bare metal)			



		☐ Area of Interest☐ Deposit	□Holiday (bare metal) □Other					
Dislodged co	oating observed on	Pipe Location w.r.t.		Fully Cyanandad				
the lake floo	_	(ie. partially buried, fu		Fully Suspended				
		Comments/Issu	ies/Discussion					
Feature 1: Bare metal. This location is identified as EAS-3 in the US-EPA's Biota Investigation Work Plan and was associated with 2017 commication cable rub. This area was repaired on October 1, 2017. Located 3" south of anchor at top of pipe; 11 to 1 o'clock position. Approx size 18"x 2' Video Reference: Video 1 – 00:12:40 Time: 9:02:16								
	11=			12/14/17				
	Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 9:09:34 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 9:08:45 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 9:13:56 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







Date: 9-20-17 Frame(HH:MM:SS) 9:02:33 Date: 9-20-17 Frame(HH:MM:SS) 9:09:00		Date:	1 9-20-17	Frame(HH:MM:SS)	9:02:33	Date:	1 (1 '2/1 1 /	Frame(HH:MM:SS)	9:09:00
---	--	-------	-----------	-----------------	---------	-------	---------------	-----------------	---------



General Information								
Date:		09/20/2 09/21/2		Contractor:		Bal	lard Marine Co	
AFE / W.O.#:	<u> </u>	20008990		ROV Operator:		Rri	an H.	
Pipe Suppor				Water Depth (DIN	1	
po cappo.	.,	19A No		Trattor Doptin ((/-			
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		it Description e, travelling N/S)		Video I (start/e		Video Reference (hh:mm:ss)		
				Video 1 –		09:22:39 9/20/17		
		Inspect So	uth to North		Video 1 – 0	0:40:00	09:29:35 9/20/17	
					Video 1 –		08:47:40 09/21/17	
					Video 1 –	0:08:04	08:55:40 09/21/17	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Cla	Visual Classification of Feature			Video Reference (hh:mm:ss)	
	(**	oo oapport)	☐ Area of Inter	est □Holiday	(hare			
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) □ Dep		Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit 🗆	Other			
			☐ Area of Inter	•	,			
			metal) Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	,			
			metal) Dep		Other			
			☐ Area of Inter metal) ☐ Dep	•	(bare]Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu							
Inspection was completed over two days.								
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
,	,							
013-	_		12/13/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 9:26:59 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 8:55:33 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 8:52:05
 Date:
 Frame(HH:MM:SS)



General Information								
Date:		09/21/2017 Contract				Bal	lard Marine Co	
AFE / W.O.#:				ROV Operator:			Brian H.	
Pipe Suppor	t Anchor:	E-45 (E-	-19A North / E-	Water Depth ((ft):			
		19B Sou	uth)				_	
Longitude:				Latitude:				
ROV Visual Inspection Log								
		ROV Trans	it Description	Video Lo	oa	Video Reference		
			e, travelling N/S)		(start/en		(hh:mm:ss)	
Inspect So			uth to North		Video 1 – 0:		08:57:20	
Inspect So					Video 1 – 0:	23:35	09:11:10	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of						
Feature Feature			Visual Cla	ssification of F	eature	Video Reference		
Mullipel	(w.r.t. pip	pe support)		Tioual Glacomounch of Fourait			(hh:mm:ss)	
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	=	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
There were no homadye, areas c	interest, or and							
013	-		12/13/17					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17

Frame(HH:MM:SS)

9:04:09

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17

Frame(HH:MM:SS)

9:10:51

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:07:54 | Date: | Frame(HH:MM:SS)



			Gene	ral Information			
Date:		09/21/2	2017	Contractor:		Bal	lard Marine Co
AFE / W.O.#:		200089		ROV Operator	:		an H.
Pipe Suppor			-19B South / E-	Water Depth (1			
		19B No		(1			
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	oa		
		DOV Trons					Video Defenence
			it Description e, travelling N/S)		Video L (start/er		Video Reference (hh:mm:ss)
		(L/VV OI PIPE	s, travelling 14/5)		Video 1 – 0		09:13:11
		Inspect So	uth to North		Video 1 – 0		09:26:40
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature				,	Video Reference
Number		pe support)	Visual Cl	assification of F	eature		(hh:mm:ss)
		,	☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other ⊂	<i>,</i>		
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other	h ()		
			☐ Area of Inter	est ⊔Holiday (□Other	bare metal)		
			☐ Deposit☐ Area of Inter		hara metal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
Dislodged co	_		•	w.r.t. Lake Floor:			Fully Suspended
the lake floo	r: □YES	⊠NO	(ie. partially burie	ed, fully suspended	d)		i any ouspended



Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed at this anchor.							
Contractor Signature	12/14/17 Date						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:15:58 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:13:46 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:26:12 | Date: | Frame(HH:MM:SS)



			Genei	ral Inf	formation				
Date:		09/21/2	2017	Cor	ntractor:		Bal	lard Marine Co	
AFE / W.O.#: 2000899			90 ROV Operato		V Operato	r:	Bria	an H.	
Pipe Suppor	rt Anchor:	E-47 (E-	15A / E-15B)	Wa	ter Depth (ft):			
Longitude:				Lat	itude:				
			ROV Visu	ıal Ins	spection L	og			
		ROV Trans	it Description			Video		Video Reference	
		(E/W of pipe	e, travelling N/S)			(start/		(hh:mm:ss)	
		Inspect So	uth to North			Video 1 – 0:46:30		09:34:06	
		•				Video 1 –	1:01:54	09:49:30	
			ROV Visua	l Insp	ection Res	sults			
Feature		ation of					\	/ideo Reference	
Number		eature be support)	Visual Cla	assifi	assification of Feature			(hh:mm:ss)	
4	8' south to			rest	□Holiday	(bare		00.20.40	
1			metal) □ Dep		-	Other		09:38:10	
			☐ Area of Inter		□Holiday	(bare			
			metal) 🗆 Dep	osit	•	Other			
			☐ Area of Inter	rest	□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			
			☐ Area of Inter	rest	□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			
			☐ Area of Inter	rest	□Holiday	(bare			
			metal) 🗆 Dep	osit		Other			
			☐ Area of Inter		□Holiday	,			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	,			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	•			
			metal) Dep			Other			
			☐ Area of Intermetal) ☐ Dep		□Holiday	(bare lOther			
			☐ Area of Inte						
			metal) \square Dep		□Holiday	(bare Other			
			☐ Area of Inte		 □Holiday				
			metal) \square Dep		-	Other			
			☐ Area of Inte		□Holiday				
			metal) □ Dep		-	Other			
			☐ Area of Inter		□Holiday				
			metal) \square Dep		•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu	ues/Discussion						
Feature 1: Potential dislodged coating. 8 to 10' south of anchor at top of pipe; approximately 11 o'clock to 3 o'clock x 2' wide								
Video Reference: Video 1 - 0:50:34 Time: 9:38:10								
Hydrophone Location								
113-			12/13/17					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 9:36:39
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 9:53:29 | Date: 9-21-17 | Frame(HH:MM:SS) | 9:46:44



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/21/2017 9:46:40 AM E-15A / E-15B Temp: 53.4 °F Date:

Date:

9-21-17

Frame(HH:MM:SS)

9:46:34

9-21-17

Frame(HH:MM:SS)

9:46:40

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-21-17

Frame(HH:MM:SS)

9:37:53

Date: 9-21-17

Frame(HH:MM:SS)

9:42:43



			Genei	ral Information			
Date:		09/21/	2017	Contractor:	Ва		ard Marine Co
AFE / W.O.#		20008	990	ROV Operato	r:	Bria	ın H.
Pipe Suppor	t Anchor:	E-48 (E	E-08A / E-8B)	Water Depth ((ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection L	og		
			sit Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)
		Inspect Sc	outh to North		Video 1 – 1:08: Video 1 – 1:22:		09:55:38 10:09:40
			ROV Visua	I Inspection Res	sults		
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	Video Reference (hh:mm:ss)	
			☐ Area of Inter	•	`		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	•	(bare]Other		
			metal) □ Dep □ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) Dep	-	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	osit =	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	osit [Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Inter	,	-		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Intermetal) ☐ Dep	,	(bare]Other		
			☐ Area of Inter				
			metal) \square Dep	•	Other		
			☐ Area of Intel				
			metal) Dep	,	Other		
			☐ Area of Inter				
			metal) 🗆 Dep	,	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	oosit	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully Suspended					
	Comments/Issu							
There were no belideve, erose of	of interest or unus	ual abaractoriation ob	poorwood around this another					
There were no nondays, areas c	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
(1/2								
07			12/13/17					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:56:48 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:58:48 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 9:58:52 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date: 09/21/2			2017	Contractor:	Contractor:		Ballard Marine Co	
AFE / W.O.#		200089		ROV Operator	:		an H.	
Pipe Suppor	t Anchor:	E-49 (E-	-8B / E-08C/D	Water Depth (1				
		South)		. `	,		•	
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			it Description e, travelling N/S)		Video (start/e		Video Reference (hh:mm:ss)	
					Video 1 –		10:13:39	
		Inspect Sou	uth to North		Video 1 –		10:24:20	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
		11 /	☐ Area of Inter☐ Deposit	rest □Holiday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holidav (bare metal)			
			☐ Deposit	□Other ⊂	,			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□ Other	hara matal)			
			☐ Area of Inter☐ Deposit	est ⊔Hollday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Area of filter ☐ Deposit	est ⊟⊓oliday (□Other	vaie ilietai)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	Said motal)			
Dislodged c	oating obs	erved on	·				Fully Over and the	
Dislodged coating observed on the lake floor: □YES ⊠NO			Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)				Fully Suspended	



Comments/Issu	ues/Discussion						
There were no holidays, areas of interest, or other characteristics observed around this anchor.							
Contractor Circumstance	12/14/17						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:18:47 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 10:17:09 | Date: 9-21-17 | Frame(HH:MM:SS) | 10:21:13



ROV Inspection Form for L5 Straits of Mackinac

9-21-17

Date:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/21/2017 10:21:11 AM E-8B / E-08C/DSouth

Frame(HH:MM:SS)

10:21:11



			Gene	ral Information			
Date:		09/21/2	2017	Contractor:	ctor:		lard Marine Co
AFE / W.O.#		200089		ROV Operator	•	Bri	an H.
Pipe Suppor	t Anchor:	E-50 (E-	08C/D South /	Water Depth (ft):		1
		E-08C/E	North)		,		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
		ROV Transi	t Description		Video L	oa	Video Reference
			, travelling N/S)		(start/er		(hh:mm:ss)
		Inspect Sou	ıth to North		Video 1 – 1	:38:29	10:26:05
		inspect 30t	itii to Nortii		Video 2 – 0	:05:15	10:38:38
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature		161 41 6.		•	Video Reference
Number	(w.r.t. pip	oe support)	Visual Ci	assification of F	eature		(hh:mm:ss)
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter	rest □Holiday (bare metal)		
			□ Deposit	□Other			
			□ Area of Inter	rest □Holiday (bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	, ,	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	• '	bare metal)		
			☐ Deposit	□Other			
			☐ Area of Inter	• `	bare metal)		
			☐ Deposit	□ Other	'h = == == t=1\		
			☐ Area of Inter☐ Deposit	est ⊔Holiday (□Other	bare metal)		
			☐ Area of Inter		hare motal)		
			☐ Deposit	□Other	bare metal)		
			☐ Area of Inter		bare metal)		
			☐ Deposit	□Other	bare metal)		
Dislodaed c	oating obs	erved on					5 " 6
Dislodged coating observed on the lake floor: □YES ⊠NO		Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)				Fully Suspended	



Comments/Issu	ues/Discussion						
There were no Holidays, areas of interest, or other unusual characteristics observed at this anchor.							
6/3	12/13/17						
Contractor Signature	Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:29:08 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:31:55 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 10:38:32
 Date:
 Frame(HH:MM:SS)



			Genera	I Information				
Date: 09/21/2			/2017 Contracto		ractor:		Ballard Marine Co	
AFE / W.O.#:		200089			r:		an H.	
Pipe Suppor	t Anchor:	E-51 (E-	-13A / E-13B	Water Depth (
		South)			` ,		-	
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect So	uth to North		Video 2 – 0:	:13:37	10:47:00	
		mapect out			Video 2- 0:	24:26	10:57:50	
			ROV Visual I	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Clas	ssification of F	eature	'	Video Reference	
Number	(w.r.t. pip	oe support)					(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Intere	•	,			
			metal) Depo		Other			
			☐ Area of Intere	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended						
		ues/Discussion							
There were no holidays, areas of	There were no holidays, areas of interest, or unusual characteristics observed at this anchor.								
, , , , , , , , , , , , , , , , , , ,									
013	_		12/13/17						
Contractor Signatu	ire		Date						

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 10:49:41 Date:

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:52:58 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 10:55:02 | Date: | Frame(HH:MM:SS)



General Information								
Date: 09/21/2		/2017 Contractor		etor:		Ballard Marine Co		
AFE / W.O.#: 2000899			ROV Operato	r:	Bri	an H.		
Pipe Suppor	t Anchor:	E-52 (E-	-13B South /	Water Depth ((ft):			
		E-13B N	lorth)				_	
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
		ROV Trans	it Description	Video Log		Video Reference		
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect So	uth to North		Video 2 – 0:29:13		11:02:36	
		порсот ос			Video 2 - 0:39:07		11:12:30	
			ROV Visual I	nspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Clas	sification of F	eature	Video Reference		
Number	(w.r.t. pipe support)						(hh:mm:ss)	
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	,	`			
			metal) Depo	sit	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Intere	•	(bare]Other			
			metal) □ Depo					
			□ Area of intere metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended					
	Comments/Issu	ues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
013			12/13/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9

9-21-17

Frame(HH:MM:SS)

11:05:14

Date:

9-21-17

Frame(HH:MM:SS)

11:08:14

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17

Frame(HH:MM:SS)

11:12:15

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

9-21-17

Date:

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

11:12:28



Frame(HH:MM:SS)



Frame(HH:MM:SS)

11:10:07

Date:

Comments:

9-21-17



General Information								
Date: 09/2		09/21/2	09/21/2017 Co		ontractor:		Ballard Marine Co	
		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-53 (E-	-13B North /	Water Depth ((ft):			
		E-13C S	South)					
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oq	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
		Inspect So	-		Video 2 – 0:40:59		11:14:22	
		торсог ос			Video 2 – 0:50:51		11:24:15	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	Video Reference		
Number	(w.r.t. pip	e support)				(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,				
			metal) 🗆 Depo	osit	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere					
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) Depo		Other			
			☐ Area of Intere	,				
			metal) ☐ Depo		Other			
			□ Area of Intere metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended					
	Comments/Issu	ues/Discussion						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
013			12/13/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: | 9-21-17 | Frame(HH:MM:SS) | 11:16:46 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/21/2017 11;23;41 AM E-13B North / E-13C South

Date: 9-21-17 | Frame(HH:MM:SS) | 11:16:41 | Date: 9-21-17 | Frame(HH:MM:SS) | 11:23:41



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 11:21:50
 Date:
 Frame(HH:MM:SS)



General Information								
Date: 09/21/2		/2017 Contractor:		Bi		Ballard Marine Co		
AFE / W.O.#: 2000899			ROV Operato	r:	Bri	an H.		
Pipe Suppor	t Anchor:	E-54 (E-	-13C South /	Water Depth (
		E-13C N	lorth)		•		_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description	Video Lo	oa	Video Reference		
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect So	-		Video 2 – 0:52:17		11:25:40	
		mapect out			Video 2 – 1:03:15		11:36:38	
			ROV Visual	Inspection Res	sults			
			NOV VISUAL	mopeotion rec	Juito			
Feature		ation of ature	Visual Classification of Feature			Video Reference		
Number	(w.r.t. pip	pe support)				(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) \square Depo	osit	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Intere	•	(bare]Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended					
	Comments/Issu							
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
1/3-	_		12/13/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 11:28:01 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 11:28:04 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 11:34:03
 Date:
 Frame(HH:MM:SS)



			Genei	ral Information			
Date:		09/21/	['] 2017	Contractor:		Ball	lard Marine Co
AFE / W.O.#:	! !	20008		ROV Operato	r:	Bria	an H.
Pipe Suppor	t Anchor:	E-55 (E	E-3A / E-3B)	Water Depth ((ft):		
Longitude:				Latitude:			
			ROV Visu	ial Inspection L	og		
			sit Description be, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)
		Inspect So	outh to North		Video 2 – 1:08 Video 2 – 1:18		11:41:24 11:52:05
			ROV Visua	Inspection Res	sults		
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	٧	/ideo Reference (hh:mm:ss)
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	, ,			
			metal) ☐ Dep				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) Dep	,	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	•	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	osit	Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,			
			metal) Dep		Other		
			☐ Area of Intermetal) ☐ Dep	•	(bare]Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu		
There were no belideve, erose of	ofinterest or unus	ual abaraatariatiaa ah	and at this anchor
There were no holidays, areas of	of interest, or unus	uai characteristics of	oserved at this anchor.
11-			
W3-			12/13/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 11:43:44 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 Frame(HH:MM:SS) 11:46:42 Date: 9-21-17 Frame(HH:MM:SS) 11:51:58



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 11:48:31 | Date: | Frame(HH:MM:SS)



			Gener	ral Info	ormation			
Date:	09/21/2017			Con	tractor:		Bal	lard Marine Co
AFE / W.O.#	:	200089	RO\	V Operator	r:	Bri	an H.	
Pipe Suppor	rt Anchor:	E-56 (E-	76A / E-76B)	Wat	er Depth (ft):		
Longitude:				Lati	tude:			
			ROV Visu	ual Ins	spection Lo	og		
		ROV Trans	it Description			Video		Video Reference
		(E/W of pipe	e, travelling N/S)			(start/		(hh:mm:ss)
		Inspect So	uth to North			Video 2 –		11:54:35
		-				Video 2 –	1:34:43	12:08:06
			ROV Visual	l Inspe	ection Res	sults		
Feature		ation of eature	Visual Cla	assific	cation of F	eature	,	Video Reference
Number	(w.r.t. pip	oe support)						(hh:mm:ss)
			☐ Area of Inter	rest	$\square \text{Holiday}$	(bare		
			metal) 🗆 Dep	osit		Other		
			☐ Area of Inter	rest	$\square \text{Holiday}$	(bare		
			metal) 🗆 Dep	osit		Other		
			□ Area of Interest □Holiday (bare		•			
			metal) \square Dep	·				
			☐ Area of Inter		□Holiday	•		
			metal) 🗆 Dep			Other		
			☐ Area of Inter		□Holiday	(bare lOther		
			metal) □ Dep □ Area of Inter					
			metal) \square Dep		□Holiday	Other		
			☐ Area of Inter		□Holiday			
			metal) □ Dep		-	Other		
			☐ Area of Inter		□Holiday			
			metal) □ Dep		-	Other		
			☐ Area of Inter		□Holiday			
			metal) 🗆 Dep	oosit		Other		
			☐ Area of Inter	rest	□Holiday	(bare		
			metal) 🗆 Dep	osit		Other		
			☐ Area of Inter		$\square Holiday$	•		
			metal) 🗆 Dep			Other		
			☐ Area of Inter		□Holiday	•		
			metal) 🗆 Dep			Other		
			☐ Area of Inter		□Holiday	•		
			metal) Dep			Other		
			☐ Area of Inter		□Holiday	•		
	<u> </u>		metal) 🗆 Dep	JOSIT	⊔	Other	<u> </u>	



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended		
Comments/Issues/Discussion					
	_				
There were no holidays, areas of interest, or unusual characteristics observed at this anchor					
/					
W 3-			12/14/17		
Contractor Signatu	re		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17

Frame(HH:MM:SS)

11:59:24

Date: Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17

Frame(HH:MM:SS)

12:08:00

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:04:36 | Date: | Frame(HH:MM:SS)



			Gener	al Information				
Date:		09/21/2	2017	Contractor:		Bal	lard Marine Co	_
AFE / W.O.#	:	200089		ROV Operato	r:	Bri	an H.	
Pipe Suppor	rt Anchor:	E-57 (E- E-02A N	-02A South / Jorth)	Water Depth ((ft):		1	
Longitude:		2 02/11	toreny	Latitude:				
Ü			BOV View	al Inspection L	00			
				ai inspection L				
			it Description		Video Log		Video Reference	
		(E/VV of pipe	e, travelling N/S)		(start/end) Video 2 – 1:39:	<u>//1</u>	(hh:mm:ss) 12:13:04	
		Inspect So	uth to North		Video 2 – 1:54		12:27:55	
								_
			ROV Visual	Inspection Res	sults			
F4-	Loca	ation of					lideo Deference	
Feature Number	Fe	ature	Visual Cla	ssification of F	eature	'	/ideo Reference (hh:mm:ss)	
Hallibei		e support)					(
1	10' north o	on east of	⊠ Area of Inter	,	,		12:21:15	
	pipe		metal) 🗆 Depo		Other			
			☐ Area of Inter	,	•			
			metal) Depe		Other			_
			☐ Area of Inter	,				
			metal) ☐ Depo		Other			
			metal) \square Depo	•	Other			
			☐ Area of Inter					
			metal) □ Depo	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Depo	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) \square Dep	osit \Box	Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Inter	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Inter	•	,			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depe	,	Other			
			☐ Area of Interes					
			metal) □ Dep	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
and land notification and an arms	Comments/Issu		
Feature 1 – Potential Deposit. 1 approximately 1"x 4".	0' north of anchor,	east side of pipe, 3	to 4 o'clock position. Size
Video Reference: Video 2 – 1:43	7:52 Time	: 12:21:15	
013	_		12/14/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:17:24 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 12:20:16 | Date: 9-21-17 | Frame(HH:MM:SS) | 12:27:45



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:28:02 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 12:21:45 | Date: 9-21-17 | Frame(HH:MM:SS) | 12:22:38





			Gener	al Information				
Date:	09/21/2017 Contractor		Contractor:		Bal	lard Marine Co		
AFE / W.O.#:					r:	Bri	an H.	
Pipe Suppor	t Anchor:	E-58 (E-	-02A North / E-	Water Depth (
		02B)					_	
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video L	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect So	uth to North		Video 2 – 1:		12:29:13	
		mapect out			Video 2 – 2:	:08:37	12:42:00	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	'	/ideo Reference	
Number	(w.r.t. pip	pe support)					(hh:mm:ss)	
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \square	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) \square Dep	osit \square	Other			
			☐ Area of Inter	,	•			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	-	•			
			metal) Depe		Other			
			☐ Area of Inter	•	•			
			metal) Depo		Other			
			☐ Area of Intermetal) ☐ Dep	,	(bare]Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	•	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended			
Comments/Issues/Discussion						
	_					
There were no holidays, areas of interest, or unusual characteristics observed at this anchor.						
/						
113-	_		12/14/17			
Contractor Signatu	re		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:33:09 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:41:47 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 12:39:46
 Date:
 Frame(HH:MM:SS)



			Genera	Information				
Date:	Pate: 09/21/2017 0		Contractor:		Bal	Ballard Marine Co		
AFE / W.O.#:				ROV Operator: Brian H.			an H.	
Pipe Suppor	t Anchor:	E-59 (E-		Water Depth (
		E-01A N	lorth)	- '				
Longitude:				Latitude:				
			ROV Visua	Inspection L	og			
		ROV Trans	it Description		Video I	Loa	Video Reference	
			e, travelling N/S)		(start/e		(hh:mm:ss)	
		Inspect So	uth to North		Video 2 – 2	2:10:13	12:43:36	
		mapect out			Video 2 – 2	2:23:36	12:57:00	
			ROV Visual I	nspection Res	sults			
	_		KOV VISUAIT	nspection ite.	Juite			
Feature		ation of ature	Visual Clas	sification of F	eature	'	/ideo Reference	
Number	(w.r.t. pip	oe support)					(hh:mm:ss)	
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	,	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	st □Holiday	(bare			
			metal) Depo	sit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) Depo		Other			
			☐ Area of Intere metal) ☐ Depo	•	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended		
Comments/Issues/Discussion					
	_				
There were no holidays, areas of interest, or unusual characteristics observed at this anchor					
/					
W 3-			12/14/17		
Contractor Signatu	re		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 12:46:42 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 12:56:52 | Date: 9-21-17 | Frame(HH:MM:SS) | 12:56:53



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 12:53:45
 Date:
 Frame(HH:MM:SS)



General Information								
Date:		09/21/2	2017	Contractor:		Bal	lard Marine Co	_
AFE / W.O.#:	<u> </u>	200089		ROV Operator	:	Bri	an H.	
Pipe Suppor	t Anchor:	E-60 (E-	-01A North /	Water Depth (1	ft):			
		E-01B-A	A South)				_	
Longitude:				Latitude:				
			ROV Visi	ual Inspection Lo	og			
		POV Trans		•		~	Video Reference	
			it Description e, travelling N/S)		Video Lo (start/end		(hh:mm:ss)	
			<u> </u>		Video 2 – 2:2	<u> </u>	12:59:44	
		Inspect Soi	uth to North		Video 2 – 2:		13:10:10	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature	\/\(\frac{1}{2} = \frac{1}{2}			,	Video Reference	
Number	(w.r.t. pip	oe support)	Visual Ci	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest ⊟Holiday (□Other	bare metal)			
			☐ Deposit☐ Area of Inter		hara matal)			
			☐ Area of inter	Test ⊟Holiday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			-
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other ⊂	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
District 1	41 1		☐ Deposit	□ Other				
Dislodged co	_			w.r.t. Lake Floor:	٩/		Fully suspended	
the lake floor: □YES ⊠NO			(ιe. paπιαιιy burί	ed, fully suspended	J)			



Comments/Issu	Comments/Issues/Discussion					
There were no holidays, areas of interest, or unusu	al characteristics observed at this anchor.					
013	12/14/17					
Contractor Signature	Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:01:54 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:05:33 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:07:01 | Date: | Frame(HH:MM:SS)



General Information								
Date: 09/		09/21/2	2017	Contractor:	Contractor:		Ballard Marine Co	
		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Support Anchor: E-61		,	-01B-A South / A North)	Water Depth ((ft):			
Longitude:		L-01b-	A NOITH	Latitude:				
			POV Visu	al Inspection L	00			
		DOV T		ar mspection L			\". D. 6	
		sit Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)		
			-		Video 2 – 2:38:47		13:12:10	
		Inspect So	uth to North		Video 2 – 2:49:51		13:23:15	
			POV Vigual	Inspection Res	aulto			
		41 6	KOV VISUAI	inspection Res	suits			
Feature Location of Feature			Visual Classification of Feature			Video Reference (hh:mm:ss)		
	(w.r.t. pip	e support)				(111.11111.55)		
			☐ Area of Inter	,	(bare]Other			
			metal) □ Dep □ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	•	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \square	Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) Dep		Other			
			☐ Area of Inter metal) ☐ Dep		Other			
			☐ Area of Inter					
			metal) □ Dep	•	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,				
			metal) Dep		Other			
			☐ Area of Inter metal) ☐ Dep	•	(bare]Other			
			<u> пош – рер</u>		- C 11 C1			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
	Comments/Issu							
There were no holidays, areas of interest, or unusual characteristics around this anchor.								
112			40/44/47					
Combractor Circustra			12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 13:15:48 | Date: 9-21-17 | Frame(HH:MM:SS) | 13:21:14

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:21:12 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



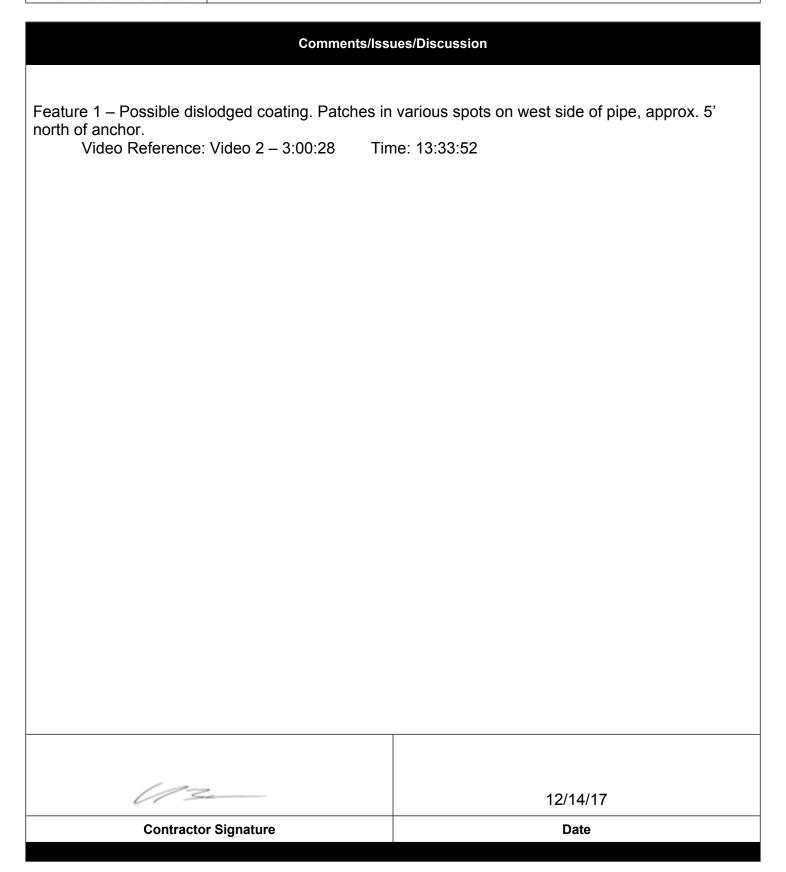
Date: 9-21-17 Frame(HH:MM:SS) 13:21:34

Date: Frame(HH:MM:SS)



General Information								
Date: 09/21/2		/2017 Contractor:		Ba		Ballard Marine Co		
AFE / W.O.#: 200089			ROV Operator	:	Bri	an H.		
Pipe Suppor	t Anchor:	E-62 (E-	-01B-A North /	Water Depth (1	ft):			_
E-01B-E		3)		•		•		
Longitude:				Latitude:				
			ROV Visi	ual Inspection Lo	og			
		ROV Trans	it Description	Video L	00	Video Reference		
			e, travelling N/S)		(start/er		(hh:mm:ss)	
			• .		Video 2 – 2:51:01		13:24:24	
		Inspect Sol	utn to Nortn	uth to North		:03:47	13:37:10	
		_						
			ROV Visua	I Inspection Res	ults			
Feature	Location	n of Feature				,	Video Reference	
Number		pe support)	Visual CI	Visual Classification of Feature			(hh:mm:ss)	
4	5' north o			rea of Interest			42.22.52	
1	pipe		☐ Deposit	□Other			13:33:52	
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	·			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, (bare metal)			
			☐ Deposit	□Other	I 1			
			☐ Area of Inter☐ Deposit	est ⊔Holiday (□Other	bare metal)			
			·		hara matal)			
			☐ Area of Inter☐ Deposit	□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□ Other	baic iliciai)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				
Dislodged coating observed on		· · · · · · · · · · · · · · · · · · ·	Pipe Location w.r.t. Lake Floor:			Fully averaged of	_	
the lake floor: □YES ⊠NO		(ie. partially buried, fully suspended)				Fully suspended		







ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:26:40 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:26:42 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 13:32:22 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/21/2017 1:34:42 PM







General Information								
Date: 09/21/2		/2017 Contractor:				Ballard Marine Co		
AFE / W.O.#	:	200089		ROV Operator	r:	Bria	an H.	
Pipe Suppor	t Anchor:	E-63 (E-	04A South /	Water Depth (ft):			
		E-04A 1	North)		•		•	
Longitude:				Latitude:				
			ROV Visu	ROV Visual Inspection Log				
	R	OV Transi	·			Log	Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
	In	enact Sai	· · · · · · · · · · · · · · · · · · ·		Video 3 - 00:00:30		14:42:50	
	111	speci 30i	ıth to North		Video 4 – 00:11:21		15:00:07	
			_					
			ROV Visua	I Inspection Res	sults			
Feature	Location of	Feature					Video Reference (hh:mm:ss)	
Number	(w.r.t. pipe s		Visual Cla	eature				
_	15' South, top			est □Holiday ((bare metal)		4.45.40	
1			☐ Deposit	□Other	,		14:45:40	
	10' South, top	o of pipe		est □Holiday ((bare metal)		4.4.7.50	
2			☐ Deposit	□Other	Other		14:47:50	
•	Just north, to	p of pipe				14:56:00		
3			□ Deposit □Other		,		14:56:08	
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other	, ,			
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other	Ì			
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	•	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	•	(bare metal)			
			☐ Deposit	□Other				
Dislodged coating observed on			•	w.r.t. Lake Floor:			Fully suspended	
the lake floor: □YES ⊠NO			(ie. partially buried, fully suspended))	

Date



Contractor Signature

ROV Inspection Form for L5 Straits of Mackinac

Comments/Issues/Discussion Video 3 was ended by accident but Video 4 picks up immediately where 3 left off. Feature 1 – Possible White Spot. 15' south of anchor on top of pipe. Approx. 3"x 3" area Video Reference: Video 3 – 00:03:24 Time: 14:45:40 Feature 2 – Possible White Spot. 10' south of anchor on top of pipe. Approx. 4"x4" Video Reference: Video 3 – 00:05:30 Time: 14:47:50 Feature 3 – Possible white spot. 0"- 4"north of anchor at the top of pipe. Size approx. 2" x 4" Video Reference: Video 4 – 00:07:22 Time: 14:56:08 12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 14:45:25 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 14:42:40 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 14:55:36 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-21-17 | Frame(HH:MM:SS) | 14:45:50 | Date: 9-21-17 | Frame(HH:MM:SS) | 14:46:52

Frame(HH:MM:SS)

14:49:33



9-21-17

Frame(HH:MM:SS)

Date:

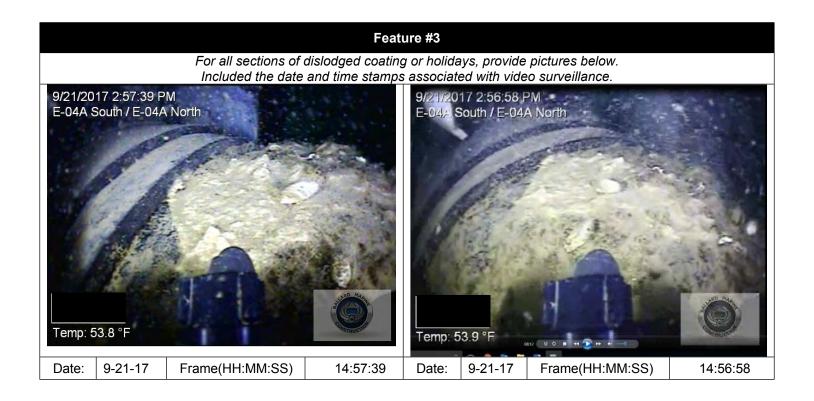
ROV Inspection Form for L5 Straits of Mackinac

9-21-17

Date:



14:48:07





			Gene	ral Information				
Date:		09/21/2017		Contractor:			Ballard Marine Co	
AFE / W.O.#:	 	2000899		ROV Operator	':	Bri	an H.	
Pipe Suppor	t Anchor:	E-64 (E-	04A North / E-	Water Depth (ft):			
		04B)	-		•		•	
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
		ROV Transi	t Description		Video	Log	Video Reference	
			, travelling N/S)		(start/e	•	(hh:mm:ss)	
			<u> </u>		Video 4 –	0:12:39	15:01:25	
		Inspect Sou	itii to Nortii		Video 4 –	0:25:19	15:14:05	
			ROV Visua	I Inspection Res	sults			
Feature	Location	of Feature		161 41 6.		,	/ideo Reference	
Number	(w.r.t. pip	e support)	Visual Cla	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other	, ,			
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	, ,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		(bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	• •	(bare metal)			
			☐ Deposit	Other	(la a sa a sa a 4 a 1)			
			☐ Area of Inter☐ Deposit	est ⊟⊓oliday (⊟Other	(bare metal)			
			•		(hara matal)			
			☐ Area of Inter☐ Deposit	est ⊟⊓ollday (⊟Other	(bare metal)			
			☐ Area of Inter		(bare metal)			-
			☐ Deposit	⊖Other	(Dai o iniciai)			
			☐ Area of Inter		(bare metal)			
			□ Deposit	□Other	(2310 1110tai)			
Dislodged co	oating obs	erved on	•	v.r.t. Lake Floor:			Fully over each at	
the lake floo	_		(ie. partially buried, fully suspended)				Fully suspended	



Comments/Issues/Discussion									
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.									
013	12/14/17								
Contractor Signature	Date								



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:08:36 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:03:57 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:11:06 | Date: | Frame(HH:MM:SS)



General Information									
Date:		09/21/2017		Contractor:			Ballard Marine Co		
AFE / W.O.#		20008990		ROV Operator	r:	Bri	an H.		
Pipe Suppor	t Anchor:	E-65 (E-	05A South /	Water Depth (ft):				
		E-05A N	North)				-		
Longitude:				Latitude:					
			ROV Visu	ual Inspection Lo	og				
		ROV Transi	t Description		Video I	_oa	Video Reference		
			, travelling N/S)		(start/e		(hh:mm:ss)		
		Inspect Sou	ıth to North		Video 4 – 0		15:16:18		
		mapeet oot			Video 4 – 0	0:41:49	15:30:35		
			ROV Visua	I Inspection Res	sults				
Feature	Location	of Feature	Visual Cla	assification of F	eature	•	/ideo Reference		
Number	(w.r.t. pipe		Visual Oil		catare		(hh:mm:ss)		
1	10' - 15' so	uth at top		,	(bare metal)	15:20:00			
	of pipe		☐ Deposit	□Other					
			☐ Area of Inter	,	(bare metal)				
			☐ Deposit	Other					
			☐ Area of Inter	, ,	(bare metal)				
			☐ Deposit	Other	// t - I)				
			☐ Area of Interest☐ Deposit	est ⊔Holiday (□Other	(bare metal)				
			☐ Area of Inter		(bare metal)				
			☐ Deposit	est ⊟Holiday (□Other	(bare metal)				
			☐ Area of Inter		(bare metal)				
			□ Deposit	□Other	(Suro motar)				
			☐ Area of Inter	est □Holiday ((bare metal)				
			□ Deposit	□Other	,				
			☐ Area of Inter	est □Holiday ((bare metal)				
			□ Deposit	□Other					
			☐ Area of Inter	est □Holiday ((bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	, ,	(bare metal)				
			☐ Deposit	□Other					
			☐ Area of Inter	•	(bare metal)				
			☐ Deposit	□Other	, , ,				
			☐ Area of Inter		(bare metal)				
			☐ Deposit	□Other	(hara matal)				
			☐ Area of Interest☐ Deposit	est ⊔Holiday (□Other	(bare metal)				
Dislodged c	oating obse	rved on	•						
the lake floo	•		•	Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)			Fully suspended		



Comments/Issues/Discussion										
Feature 1 – Potential dislodged coating. Patches visible 10' to 15' south of anchor at top of pipe Video Reference: Video 4 – 0:31:21 Time: 15:20:00										
01=	12/14/17									
Contractor Signature	Date									



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:19:29 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:24:30 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:27:49 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:20:08 | Date: | Frame(HH:MM:SS)





			Genera	al Information					
Date:		09/21/2	2017	Contractor:			Ballard Marine Co		
AFE / W.O.#:		200089					an H.		
Pipe Suppor	t Anchor:	E-66 (E-	-05A North / E-	Water Depth (
		05B)			•		_		
Longitude:				Latitude:					
			ROV Visua	al Inspection L	og				
		ROV Trans	it Description		Video Lo	a	Video Reference		
			e, travelling N/S)		(start/end		(hh:mm:ss)		
		Inspect So	uth to North		Video 4 – 0:4	3:12	15:31:58		
		mapect 30	util to North		Video 4 – 0:5	6:29	15:45:15		
			ROV Visual	Inspection Res	sults				
	Loca	ation of							
Feature		ature	Visual Cla	ssification of F	eature	•	Video Reference		
Number		pe support)					(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo	osit 🗆	Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo	osit 🗆	Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo	osit 🗆	Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) \square Depo	osit	Other				
			☐ Area of Intere	,	'				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	•	•				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	•	,				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	,	,				
			metal) Depo		Other				
			☐ Area of Intere	,	`				
			metal) □ Depo		Other				
			metal) □ Depo	,	Other				
			☐ Area of Intere						
			metal) \square Depo	•	Other				
			☐ Area of Intere						
			metal) \square Depo	•	Other				
			☐ Area of Intere						
			metal) \square Depo	,	Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended						
	Comments/Issu								
There were no holidays, areas of	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
11 Ze-	_		12/14/17						
Contractor Signatu	ire		Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:35:16 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 15:38:14 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 15:44:55
 Date:
 Frame(HH:MM:SS)



			Gene	ral Information			
Date:		09/21/2	2017	Contractor:		Bal	lard Marine Co
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.
Pipe Suppor	rt Anchor:	E-67 (E-	·65A / E-65B)	Water Depth (1	ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection Lo	og		
			t Description e, travelling N/S)		Video (start/e	end)	Video Reference (hh:mm:ss)
		Inspect Sou	uth to North		Video 4 –		15:56:33
					Video 4 –	1:21:29	16:10:15
			ROV Visua	I Inspection Res	ults		
Feature	Location	of Feature		assification of F		,	Video Reference
Number		e support)					(hh:mm:ss)
1	5' – 15' so pipe	outh, top of		est □Holiday (□Other	bare metal)		15:59:51
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	Other			
			☐ Area of Inter☐ Deposit	est ⊔Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter	est □Holiday (□Other	bare metal)		
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit☐ Area of Inter	□ Other est □ Holiday (bare metal)		
			☐ Deposit	□ Other			
			☐ Area of Inter	• ,	bare metal)		
			☐ Deposit☐ Area of Inter	□Other est □Holidav (bare metal)		
			□ Deposit	□Other			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		
			☐ Area of Inter☐ Deposit		bare metal)		
			☐ Area of Inter	est □Holiday (bare metal)		
			☐ Deposit	Other	h = n= . + - 1\		
			☐ Area of Inter☐ Deposit	est ⊟Holiday (□Other	bare metal)		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
	Comments/Issi	ues/Discussion						
Feature 1 – Possible dislodged o	Feature 1 – Possible dislodged coating. 5' south and up to 15' south of anchor, at top of pipe –							
Video Reference: Video 4 – 1:11:05 Time: 15:59:51								
013-			12/14/17					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: Comments:

9-21-17

Frame(HH:MM:SS)

15:59:41

Date:

Frame(HH:MM:SS)

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS)

16:08:00

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 16:07:53

Date: Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 16:00:06 Date: Frame(HH:MM:SS)





General Information									
Date:		09/20/2	2017	Contractor:			lard Marine Co		
AFE / W.O.#		200089	90	ROV Operato	r:	Bri	an H.		
Pipe Suppor	t Anchor:	W-1 (W	-01A / W-01B	Water Depth ((ft):				
		South)							
Longitude:				Latitude:					
			ROV Visua	al Inspection L	og				
		ROV Trans	it Description		Video	Loa	Video Reference		
			e, travelling N/S)		(start/e		(hh:mm:ss)		
		Inchect Sou	uth to North		Video 2 –	0:06:37	10:00:19		
	'	ilispect 30t	dili to Nortii		Video 2 –	0:28:52	10:22:34		
			ROV Visual	Inspection Res	sults				
Feature		ion of				,	/ideo Reference		
Number		ture	Visual Cla	ssification of F	eature	,	(hh:mm:ss)		
	(w.r.t. pipe 3' and 5' so								
1	pipe	butil top of	⊠ Area of Intere	,	`		10:01:30		
	5' south at	woot of	metal) 🗆 Depo		Other				
2	pipe	west of	a rusu or interest a remady (bare				10:05:20		
		metal) □ Deposit □ Other							
3	1 - 10' norti west& top of		⊠ Area of Intere	,	-		10:12:25		
		o. p.p.	metal) 🗆 Depo		Other				
			☐ Area of Intere	,	`				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	,	(bare]Other				
			metal) Depo						
			☐ Area of Interemental) ☐ Depo	,	Other				
			☐ Area of Intere						
			metal) \square Depo	-	Other				
			☐ Area of Intere						
			metal) □ Depo	,	Other				
			☐ Area of Intere						
			metal) □ Depo	,	Other				
			☐ Area of Intere		(bare				
			metal) □ Depo	,	Other				
			☐ Area of Intere						
			metal) □ Depo	-	Other				
			☐ Area of Intere		(bare				
			metal) 🗆 Depo	-	Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo	,	Other				
Dislodged c	oating obse	rved on	Pipe Location w	v.r.t. Lake Floor	:		Fully suspended		
the lake floor: □YES ⊠NO		(ie. partially burie	ed, fully suspende		i dily susperided				



ROV Inspection Form for L5 Straits of Mackinac

Comments/Issues/Discussion

Feature 1 - possible patches of dislodged coating. Between 3 and 5' south of anchor at top of pipe.

Feature 2 - possible dislodged coating 3"x 3", 5' south at west of pipe

Video Reference: Video 2 – 0:11:38 Time: 10:05:20

Feature 3 - possible dislodged coating, patches between 1 to 10' north at top, east, and west side

of pipe

013-	12/14/17
Contractor Signature	Date



ROV Inspection Form for L5 Straits of Mackinac

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:17:13 | Date: | Frame(HH:MM:SS)

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:15:01 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-20-17
 Frame(HH:MM:SS)
 10:08:05
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 Frame(HH:MM:SS) 10:18:28 Date: 9-20-17 Frame(HH:MM:SS) 10:18:57

Feature #3 (Cont.)

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ENBRIDGE

Date:	9-20-17	Frame(HH:MM:SS)	10:18:09	Date:	9-20-17	Frame(HH:MM:SS)	10:16:22
		,				,	



	General Information										
Date: 09/20/2			9/20/2017 Cont			Bal	Ballard Marine Co				
AFE / W.O.#: 2000899				ROV Operate	or:	Bri	an H.				
Pipe Suppor	t Anchor:	W-2 (W	'-01B South /	Water Depth	(ft):						
		W-01B	North)	_							
Longitude:				Latitude:							
			ROV Visi	ual Inspection	Log						
	RC	V Transi	it Description		Video	Log	Video Reference				
			e, travelling N/S)		(start/	•	(hh:mm:ss)				
	Ins	spect Sou	uth to North		Video 2 -		10:27:02				
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Video 2 –	0:48:43	10:42:25				
			ROV Visua	I Inspection Re	esults						
Feature	Location of	Feature	Vieual CI	assification of	Foaturo	,	Video Reference				
Number	(w.r.t. pipe si		Visual Ci	assilication of	i eature		(hh:mm:ss)				
1	10' south east	of pipe		,	(bare metal)		10:29:00				
-			☐ Deposit	□Other							
			☐ Area of Inter	,	(bare metal)						
			☐ Deposit	□Other							
			☐ Area of Inter	,	(bare metal)						
			☐ Deposit	□Other							
			☐ Area of Inter	rest ⊟Holiday □Other	(bare metal)						
			☐ Deposit☐ Area of Inter		· (bara matal)						
			☐ Area of friter	□ Other	(bare metal)						
			☐ Area of Inter		/ (bare metal)						
			☐ Deposit	□ Other	(bare metal)						
			☐ Area of Inter		/ (bare metal)						
			☐ Deposit	□Other	(Sai S inicial)						
			☐ Area of Inter	est □Holiday	(bare metal)						
			☐ Deposit	□Other	· ,						
			☐ Area of Inter	rest □Holiday	(bare metal)						
			☐ Deposit	□Other							
			☐ Area of Inter	,	(bare metal)						
			☐ Deposit	□Other							
			☐ Area of Inter		(bare metal)						
			☐ Deposit	□Other							
			☐ Area of Inter	,	(bare metal)						
			□ Deposit	□Other							
			☐ Area of Inter	,	(bare metal)						
Dielodeed -	oating observe	nd on	☐ Deposit	□Other	•						
_	oating observe or: □YES ⊠N		· •	w.r.t. Lake Flooi ed, fully suspend			Fully suspended				
LITE IANG 1100	n. Lies Mi	NO	i (ic. partially bull	ca, rany saspena	icu <i>j</i>	I					



Comments/Issues/Discussion					
Feature 1 – Possible dislodged coating. From 1-10' South of anchor, various patches on east, west, and top of pipe.					
Video Reference: Video 2 – 0:35:18 Time:	10:29:00				
01=	12/14/17				
Contractor Signature	Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:30:32 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:37:05 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:39:22 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 Frame(HH:MM:SS) 10:32:00 Date: 9-20-17 Frame(HH:MM:SS) 10:32:19



General Information								
Date:		09/20/	2017 Contractor:			Ballard Marine Co		
AFE / W.O.#	:	200089	990	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-3 (V	V-5A / W-5B)	Water Depth (ft):			
Longitude:				Latitude:				
ROV Visual Inspection Log								
ROV Transit Description (E/W of pipe, travelling N/S)			Video Log (start/end)		Video Reference (hh:mm:ss)			
		spect North to South		Video 2 – 0:56:48 Video 2 – 1:13:48		10:50:30 11:07:30		
				71000				
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of eature	Visual Classification of Feature			Video Reference (hh:mm:ss)		
1	10' north pipe			7 \			11:02:30	
2	0 to 10' n	orth		est □Holiday			11:02:30	
			☐ Area of Inter	est □Holiday	(bare Other			
			☐ Area of Intermetal) ☐ Dep	est □Holiday				
			☐ Area of Intermetal) ☐ Dep	est □Holiday				
			☐ Area of Inter	est □Holiday	(bare			
			metal) Dep	est □Holiday	,			
			metal) □ Dep	est □Holiday	`			
			metal) □ Dep □ Area of Inter	est □Holiday	,			
			metal) □ Dep		Other (bare			
			metal) □ Dep		Other			
			metal) Dep	osit \Box	Other			
			☐ Area of Inter metal) ☐ Dep	osit \Box	Other			
			☐ Area of Intermetal) ☐ Dep	•	(bare Other			
			☐ Area of Inter	•	(bare			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)		Fully suspended		
Comments/Issues/Discussion					
Feature 1 - Two potential deposits approx. 1"x1" and 1"x1" in size and about 10' north of anchor at top of pipe Video Reference: Video 2 – 1:08:47 Time: 11:02:30					
Feature 2 - Possible patches of and west side of pipe Video Reference: Video 2 -		from 0 to 10' north at Time: 11:02:30	various locations along top		
013-			12/14/17		
Contractor Signatu	re		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 10:56:08 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:02:16 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:02:14 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/20/2017 11:04:18 AM W-5A / W-5B Temp: 58.2 °F

Date:

9-20-17

Frame(HH:MM:SS)

11:04:16

Date:

9-20-17

Frame(HH:MM:SS)

11:04:18

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-20-17

Frame(HH:MM:SS)

11:04:07

Date:

Frame(HH:MM:SS)



General Information								
Date:		09/20/2	2017	Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H	
Pipe Suppor	t Anchor:	W-4 (W	-2A / W-2B)	Water Depth (1	ft):			
Longitude:			Latitude:					
ROV Visual Inspection Log								
			t Description		Video		Video Reference	
(E/W of pipe			, travelling N/S)		(start/e		(hh:mm:ss)	
Inspect So			ıth to North		Video 2 – Video 2 –		11:11:34 11:27:56	
						1.34.14	11.27.30	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature	•	Video Reference (hh:mm:ss)	
1	10' north a			est □Holiday (□Other	bare metal)		11:23:00	
			☐ Area of Inter		bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Intere		bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit ☐ Area of Interest	est □Holiday (bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter☐ Deposit	est ⊟Holiday (□Other	bare metal)			
Dislodged c	oating obs	erved on	•					
Dislodged coating observed on the lake floor: □YES ⊠NO			-	Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended)			Fully suspended	



Comments/Issu	ues/Discussion
Feature 1- possible patches of dislodged coating, 1 Video Reference: Video 2 – 1:28:31 Time: 1	0' north of anchor 1:22:13
013-	12/14/17
Contractor Signature	Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:14:55 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:14:52 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:23:46 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 | Frame(HH:MM:SS) | 11:23:25 | Date: 9-20-17 | Frame(HH:MM:SS) | 11:23:26



			Gener	ral Informati	on			
Date:		09/20/2	2017	Contractor:		Ва	Ballard Marine Co	
AFE / W.O.#	:	200089		ROV Operator:		Br	an H.	
Pipe Suppor	rt Anchor:	W-5 (W	'-6A / W-6B)	Water Depth (ft):				
Longitude:				Latitude:				
			ROV Visu	ıal Inspectio	n Log			
		ROV Trans	it Description			ideo Log	Video Reference	
(E/W of pip			e, travelling N/S)			start/end)	(hh:mm:ss)	
Inspect So			uth to North			0 2 - 1:35:33	11:29:15	
		-			Viae	o 2 – 1:48:47	11:42:30	
			ROV Visual	Inspection	Results			
Feature Number	Fe	ation of eature	Visual Cla	assification	of Feature		Video Reference (hh:mm:ss)	
	(w.r.t. pi	pe support)			d = /l= =		. ,	
			☐ Area of Intermetal)☐ Dep		day (bare □Other			
			☐ Area of Inter		Otriei day (bare			
			metal) \square Dep		oay (bare □Other			
			☐ Area of Inter		day (bare			
			metal) □ Dep		☐Other			
			☐ Area of Inter		day (bare			
			metal) 🗆 Dep		□Other			
			☐ Area of Inter	rest □Holi	day (bare			
			metal) 🗆 Dep	osit	□Other			
			☐ Area of Inter		day (bare			
			metal) 🗆 Dep	osit	□Other			
			☐ Area of Inter		day (bare			
			metal) 🗆 Dep		□Other			
			☐ Area of Inter		day (bare			
			metal) Dep		Other			
			☐ Area of Inter		day (bare □Other			
			metal) □ Dep □ Area of Inter		⊔Otner_ day (bare			
			metal) \square Dep		oay (bare □Other			
			☐ Area of Inter		day (bare			
			metal) □ Dep		☐Other			
			☐ Area of Inter		day (bare			
			metal) □ Dep		Other			
			☐ Area of Inter		day (bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	rest □Holi	day (bare			
			metal) 🗆 Dep	osit	□Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended				
	Comments/Issu						
There were no holidays, areas of	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.						
013-	_		12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 1:33:12 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:42:23 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 11:39:45 | Date: | Frame(HH:MM:SS)



General Information								
Date:		09/20/2	2017	Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	t Anchor:	W-6 (W	-12A / W-12B)	Water Depth (ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
			t Description		Video		Video Reference	
(E/W of pipe			, travelling N/S)		(start/e		(hh:mm:ss)	
Inspect So			ıth to North		Video 2 –		11:52:38	
		<u>-</u>			Video 2 –	2:15:28	12:09:10	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature				,	Video Reference	
Number		ne support)	Visual Cla	assification of F	eature		(hh:mm:ss)	
4	0 to15' no	rth at top of		est □Holiday (bare metal)		12:01:37	
1	pipe		☐ Deposit	□Other	,		12.01.37	
			☐ Area of Inter	est □Holiday (bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	(bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	- '	bare metal)			
			☐ Deposit	Other	'L ()			
			☐ Area of Inter	- '	bare metal)			
			☐ Deposit	□ Other	hara matal)			
			☐ Area of Interest☐ Deposit	est ⊔Holiday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	, Jaio motal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□ Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	, 			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
Dislodged c	_		-	w.r.t. Lake Floor:			Fully suspended	
the lake floor: □YES ⊠NO			(ie. partially burie	ed, fully suspende	d)		i any suspended	



ROV Inspection Form for L5 Straits of Mackinac

Comments/Issues/Discussion Feature 1 - possible patches of dislodged coating on north side of anchor, from anchor to 15' on top, east, and west sides of pipe Video Reference: Video 2 - 2:07:55 Time: 12:01:37 12/14/17 **Contractor Signature** Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 12:01:48 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 12:03:39 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 12:06:36 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/20/2017 12:03:13 PM





Date: 9-20-17 | Frame(HH:MM:SS) | 12:04:23 | Date: 9-20-17 | Frame(HH:MM:SS) | 12:03:13



			Gene	ral Inf	formation				
Date:		09/20/2	2017	Coi	Contractor:		Bal	Ballard Marine Co	
AFE / W.O.#	:	200089		RO	ROV Operator:		Bria	Brian H.	
Pipe Suppor	rt Anchor:	W-7 (W	'-13A / W-13B)	(-13B) Water Depth (ft):					
Longitude:				Lat	itude:				
			ROV Visu	ual Ins	spection L	og			
		ROV Trans	it Description		Video		Video Reference		
		(E/W of pipe	e, travelling N/S)			(start/end)		(hh:mm:ss)	
Inspect So			uth to North			Video 2 –		12:12:27	
		-				Video 2 –	2:34:19	12:28:01	
			ROV Visua	l Insp	ection Res	sults			
Feature Location of Feature			Visual Cla	assifi	cation of F	eature	\	/ideo Reference	
Number	(w.r.t. pip	oe support)					(hh:mm:ss)		
1		n, top east	⊠ Area of Inte	rest	□Holiday	(bare		12:22:00	
· · · · · · · · · · · · · · · · · · ·	and west		metal) 🗆 Dep	oosit		Other		12.22.00	
			☐ Area of Inte	rest	□Holiday	(bare			
			metal) 🗆 Dep	oosit		Other			
			☐ Area of Inte		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Inte		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Inter		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Intermetal) ☐ Dep		□Holiday	(bare]Other			
			☐ Area of Inte		 □Holiday				
			metal) \square Dep		•	Other			
			☐ Area of Inte		□Holiday				
			metal) □ Dep		-	Other			
			☐ Area of Inte		□Holiday				
			metal) 🗆 Dep		-	Other			
			☐ Area of Inte	rest	□Holiday	(bare			
			metal) 🗆 Dep	oosit		Other			
			☐ Area of Inte	rest	□Holiday	(bare			
			metal) 🗆 Dep			Other			
			☐ Area of Inte		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Inte		□Holiday	•			
			metal) 🗆 Dep			Other			
			☐ Area of Inte		□Holiday	•			
			metal) 🗆 Dep	oosit		Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu						
	Comments/Issu	ues/Discussion					
Feature 1 - possible dislodged coating. From 1 -10' North of anchor, on top and west sides of pipe. Video Reference: Video 2 - 2:27:27 Time: 12:21:09							
///=			12/14/17				
Contractor Signatu	ıre		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 12:15:54 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 Frame(HH:MM:SS) 12:19:44 Date: 9-20-17 Frame(HH:MM:SS) 12:27:50



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 12:21:16 | Date: | Frame(HH:MM:SS)

Comments:

Date:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/20/2017 12:26:03 PW

W-13A / W-13B



9-20-17 Frame(HH:MM:SS) 12:27:44 Date: 9-20-17 Frame(HH:MM:SS) 12:26:08

Temp: 57.7 °F



General Information								
Date:		09/20/	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#:	•	200089				Brian H.		
Pipe Suppor	t Anchor:	W-8 (V	V-18A-A / W-	Water Depth (1	ft):			
18A So			uth)					
Longitude:				Latitude:				
ROV Visual Inspection Log								
			sit Description e, travelling N/S)	Video (start/e		Video Reference (hh:mm:ss)		
					Video 3 –		14:00:16	
		Inspect So	uth to North		Video 3 –		14:11:25	
			ROV Visua	I Inspection Res	ults			
_	Loca	ation of					Calca Dat	
Feature Number		ature	Visual Cla	assification of F	eature	`	Video Reference (hh:mm:ss)	
HUIIIDEI	(w.r.t. pip	e support)					(1111.111111.00)	
			☐ Area of Inter	• `	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	est ⊔Holiday (□Other	bare metal)			
			☐ Deposit☐ Area of Inter		hara matal)			
			☐ Deposit	⊖Other	bare metal)			
			☐ Area of Inter		bare metal)			
			□ Deposit	□ Other	bare metal)			
			☐ Area of Inter		bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	ŕ			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	7 (1)			
			☐ Area of Inter	est ⊔Holiday (□Other	bare metal)			
			☐ Deposit☐ Area of Inter		hare motel)			
			☐ Deposit	est ⊟⊓oliday (bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended		
	Comments/Issu	ues/Discussion			
There were no holidays, areas o	f interest, or unusu	al characteristics obs	erved around this anchor.		
113-			12/14/17		
Contractor Signatu	ire		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:03:19 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:06:27 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-20-17
 Frame(HH:MM:SS)
 14:08:32
 Date:
 Frame(HH:MM:SS)



			Genera	al Information				
Date:		09/20/2	2017 Contractor:			Ballard Marine Co		
AFE / W.O.#:		200089	990 ROV Operator		r:	Bri	an H.	
Pipe Suppor	t Anchor:	,	/-18A South /	Water Depth ((ft):			
1		W-18A	North)	1 -441				
Longitude:	Longitude:			Latitude:				
			ROV Visua	al Inspection L	og			
ROV Trans			it Description		Video Log		Video Reference	
		(E/W of pipe	e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect So	uth to North		Video 3 – 0:		14:13:40	
		•			Video 3 – 0:	28:24	14:27:20	
			ROV Visual	Inspection Res	sults			
Factoria	Loca	ation of					/idea Deference	
Feature Number		ature	Visual Cla	ssification of F	eature	'	Video Reference (hh:mm:ss)	
	(w.r.t. pip	pe support)					(
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•				
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) ☐ Depo		Other			
			□ Area of Interd metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended			
	Comments/Issu					
There were no holidays, areas of	of interest, or unus	ual characteristics ob	served around this anchor.			
1/12						
07			12/14/17			
Contractor Signatu	re		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:16:55 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:20:55 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:24:07 | Date: | Frame(HH:MM:SS)



General Information								
Date:		09/20/2	2017	Contractor:			Ballard Marine Co	
AFE / W.O.#:	<u> </u>	200089		ROV Operator	:	Bri	an H.	_
Pipe Suppor	t Anchor:	W-10 (\	N-18A North /	Water Depth (1	it):			
	W-18B S		South)		•		•	
Longitude:				Latitude:				
ROV Visual Inspection Log					og			
		POV Trans	it Description	•	Video Lo	~	Video Reference	
			e, travelling N/S)		Video Log (start/end		(hh:mm:ss)	
			<u> </u>		Video 3 – 0:2	<u>, </u>	14:28:52	_
		Inspect Soi	uth to North		Video 3 – 0:4		14:43:41	
			ROV Visua	I Inspection Res	ults			
Feature	Location	of Feature	\/\tau \(\(\)			,	Video Reference	
Number	(w.r.t. pip	oe support)	Visual Ci	assification of F	eature		(hh:mm:ss)	
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit☐ Area of Inter	□Other	hara matal)			_
			☐ Area of Inter	est ⊔Hollday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□ Other				
			☐ Area of Inter		bare metal)			_
			☐ Deposit	□Other	,			
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				_
Dislodged c	_			w.r.t. Lake Floor:			Fully suspended	
the lake floor: □YES ⊠NO			(ie. partially burie	ed, fully suspended	d)		J - 180 8	



Comments/Issues/Discussion				
There were no holidays, area of interest, or unusual characteristics observed around this anchor.				
013-	12/14/17			
Contractor Signature	Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:33:03 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 14:37:00 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-20-17
 Frame(HH:MM:SS)
 14:40:19
 Date:
 Frame(HH:MM:SS)



			Gener	al Information				
Date:		09/20/2	2017	Contractor:		Bal	lard Marine Co	•
AFE / W.O.#:		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-11 (\ W-18B	W-18B South / North)	Water Depth ((ft):		1	
Longitude:				Latitude:				-
			ROV Visu	ıal Inspection L	oa			ı
		DOV/ Trans					Video Reference	
			it Description e, travelling N/S)		Video Lo (start/end		(hh:mm:ss)	
					Video 3 – 0:		14:45:33	-
		Inspect So	uth to North		Video 4 – 0:		15:04:00	
								_
			DOV///invest	Harmont's an Boa	14			
			ROV Visual	Inspection Res	suits			
Feature Number	Fe	ation of ature	Visual Cla	assification of F	eature	1	Video Reference (hh:mm:ss)	
		n tan of					,	_
1	8' south o	п юр ог	☐ Area of Intermetal)☑ Dep	,	(bare]Other		14:51:00	
			☐ Area of Inter					-
			metal) □ Dep	•	Other			
			☐ Area of Inter					-
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep		Other			_
			☐ Area of Inter		•			
			metal) 🗆 Dep		Other			_
			☐ Area of Inter	,	`			
			metal) Dep		Other			_
			☐ Area of Intermetal)☐ Dep	,	Other			
			☐ Area of Inter					-
			metal) □ Dep	,	Other			
			☐ Area of Inter					_
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Fully suspended		
Comments/Issues/Discussion				
Feature 1 – Potential deposit. 8' Video Reference: Video 3		n top of pipe in an ar Time: 14:51:00	rea approx. 1'x 6"	
Note: Video 3 was ended accide Video 3.	entally while inspe	cting anchor. Video 4	picks up immediately after	
113-	_		12/14/17	
Contractor Signatu	ire		Date	



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-20-17
 Frame(HH:MM:SS)
 14:53:58
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below.

Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:00:56 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 | Frame(HH:MM:SS) | 14:52:28 | Date: 9-20-17 | Frame(HH:MM:SS) | 14:52:59



			Genera	al Information				
Date:		09/20/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#:	ı	200089		ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-12 (\	N-24A / W-	Water Depth ((ft):			
		24B)					_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect Sol	uth to North		Video 4 – 0:		15:06:36	
		mapect out			Video 4 – 0:	24:29	15:23:28	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of				_		
Feature Number		ature	Visual Clas	ssification of F	eature	'	/ideo Reference (hh:mm:ss)	
Mullipel	(w.r.t. pip	pe support)					(1111.111111.55)	
			☐ Area of Intere	,	(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
	oating observed on	Pipe Location w.r.t.	Lake Floor:	Fully suspended
the lake floor: □YES ⊠NO (ie. partially			ılly suspended)) сасронаса
		Comments/Issu	ies/Discussion	
There were	no holidays, areas o	of interest, or unus	ual characteristics ob	served around this anchor.
	113_			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:20:02 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:13:00 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:23:05 | Date: | Frame(HH:MM:SS)



Date: 09/20/2017 Contractor: Ballard Marine Co AFE / W.O.#: 20008990 ROV Operator: Brian H. Pipe Support Anchor: W-13 (W-23A / W-23B) Water Depth (ft):	
Pipe Support Anchor: W-13 (W-23A / W- Water Depth (ft):	
• • • • • • • • • • • • • • • • • • • •	
Longitude: Latitude:	
ROV Visual Inspection Log	
ROV Transit Description Video Log Video Reference	
(E/W of pipe, travelling N/S) (start/end) (hh:mm:ss)	
Video 4 – 0:27:17 15:26:16	
Inspect South to North Video 4 – 0:41:27 15:40:26	
ROV Visual Inspection Results	
Location of Video Reference	
Feature Number Visual Classification of Feature Video Reference (hh:mm:ss)	
(w.r.t. pipe support)	
10' south, top of pipe ⊠ Area of Interest □Holiday (bare 15:30:30	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other □ Area of Interest □ Holiday (bare	
☐ Area of Interest ☐ Holiday (bare metal) ☐ Deposit ☐ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) Deposit Other	
☐ Area of Interest ☐ Holiday (bare metal) ☐ Deposit ☐ Other	
☐ Area of Interest ☐ Holiday (bare	
metal) □ Deposit □ Other	



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
	oating observed on or: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor:	Fully suspended
		Comments/Issu	ies/Discussion	
Feature 1 - Video Refei	possible dislodged or rence: Video 4 – 0:3	coating. 10' south f 31:32 Time:	rom anchor at 11-12 15:30:30	o'clock
	1/2_	_		12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:30:20 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:40:15 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 15:37:51 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







			Genera	I Information				
Date:		09/20/2	2017 Contractor:			Ballard Marine Co		
AFE / W.O.#:		200089				Brian H.		
Pipe Support Anchor: W-14 (W				Water Depth (
W-28A I			North)					
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
		ROV Transi	it Description		Video Lo	na	Video Reference	
			e, travelling N/S)		(start/end) (h			
Inspect So			uth to North		Video 4 – 0:	57:02	15:56:00	
Inspect 50					Video 4 – 1:	15:02	16:14:00	
			ROV Visual I	nspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Clas	sification of F	eature	Video Reference		
Number		e support)				(hh:mm:ss)		
1	8' south a	t top of		,	(bare		16:01:40	
•	pipe		metal) \square Depos	sit 🗆	Other	13.31.10		
2	east side north of a	of pipe, just		•	`		16:10:20	
-	north or a	TICTIOI	metal) 🗆 Depos		Other			
			☐ Area of Interes	,	,			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	•	•			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	,	(bare]Other			
			metal) Depos					
			☐ Area of Interest metal) ☐ Depos	•	(bare]Other			
			☐ Area of Interes					
			metal) \square Depos	•	Other			
			☐ Area of Interes					
			metal) Depos	•	Other			
			☐ Area of Interes					
			metal) 🗆 Depos	,	Other			
			☐ Area of Interes	st □Holiday	(bare			
			metal) 🗆 Depos	sit \Box	Other			
			☐ Area of Interes	st □Holiday	(bare			
			metal) 🗆 Depos	sit 🗆	Other			
			☐ Area of Interes	•	,			
			metal) Depos		Other			
			☐ Area of Interes	-	•			
			metal) 🗆 Depos	sit \square	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
	Comments/Issu	ues/Discussion						
Feature 1 – Potential Deposit, Approx. 3" x 3" in size. Located top of pipe, 8' south of anchor. Video Reference: Video 4 – 1:02:42 Time: 16:01:40								
Feature 2 - Possible dislodged coating. Immediately north of anchor on east side of pipe; Approx. 4o'clock Position. Video Reference: Video 4 – 1:11:22 Time: 16:10:20								
013			12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/20/2017 4:06:02 PM W-28A North

W-28A South / W-28A North

Temp: 55.7 °F

Date: 9-20-17 | Frame(HH:MM:SS) | 16:01:24

Date: | 9-20-17 | Fr

Frame(HH:MM:SS)

16:06:02

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: Frame(HH:MM:SS) Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below.
Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 16:13:34 | Date: | Frame(HH:MM:SS)



Temp: 56.5

Date:

9-20-17

9-20-17

Date:

Frame(HH:MM:SS)

Frame(HH:MM:SS)

ROV Inspection Form for L5 Straits of Mackinac



emp: 56.4

Date:

9-20-17

9-20-17

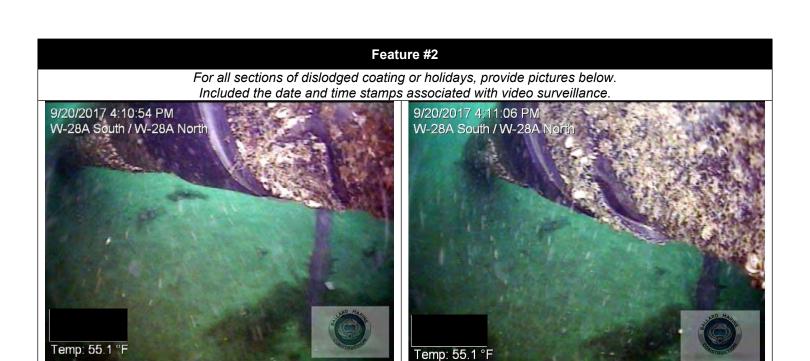
Date:

Frame(HH:MM:SS)

Frame(HH:MM:SS)

16:02:00

16:11:06



16:01:46

16:10:54



			Genera	al Information				
Date:		09/20/2	2017	Contractor:		Ва	llard Marine Co	_
AFE / W.O.#	:	200089	90	ROV Operato	r:	Bri	an H.	
Pipe Support Anchor: W-15 (W-28B)			N-28A North/	Water Depth ((ft):			
Longitude:				Latitude:				
			POV Visus	al Inspection L	og			
		ROV Trans	it Description	ii iiispection L	Video Lo) (I	Video Reference	
			e, travelling N/S)	(start/end		(hh:mm:ss)		
			uth to North		Video 4 – 1:	20:20	16:19:18	
		mspect 30			Video 4 – 1:	40:56	16:39:55	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature Number	Fe	ature	Visual Cla	ssification of F	eature	`	Video Reference (hh:mm:ss)	
Number		pe support)					(1111.111111.55)	
1		th at top of		,	•		16:30:00	
	pipe		metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo		Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit =	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
	1		metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) □ Depo		Other			
			□ Area of Interest metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere		i			_
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended					
	Comments/Issu	ues/Discussion						
Feature 1 – Possible dislodged coating. 0 - 10' south of anchor at top of pipe Video Reference: Video 4 – 1:31:02 Time: 16:30:00								
11-								
Contractor Signatu	ıre		12/14/17 Date					
Contractor Signatu			Julio					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 16:28:35 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 16:39:51 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 Frame(HH:MM:SS) 16:36:51

Date:

Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 16:30:31 | Date: | Frame(HH:MM:SS)





			Genera	al Information				
Date:		09/20/2	2017	Contractor:		Ва	llard Marine Co	
AFE / W.O.#	:	200089		ROV Operato	r:	Bri	an H.	
Pipe Support Anchor: W-16 (W			N-31A South /	Water Depth (
W-31A I			North)				_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
			uth to North		Video 4 – 1:		16:49:51	
Inspect Sou			util to North		Video 4 – 2:	- 2:01:47 17:0		
			ROV Visual	Inspection Res	sults			
	Loca	ation of		•				
Feature		ation of eature	Visual Cla	ssification of F	eature	Video Reference		
Number	1	pe support)	Tioual Gla			(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended				
	Comments/Issu						
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
1/3c	_		12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-20-17 Frame(HH:MM:SS) Date: 16:51:52

Frame(HH:MM:SS) Date:

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Frame(HH:MM:SS) Frame(HH:MM:SS) 9-20-17 16:56:39 Date: Date:



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-20-17
 Frame(HH:MM:SS)
 16:57:41
 Date:
 Frame(HH:MM:SS)



			Genera	al Information						
Date:		09/20/2	2017	Contractor:		Ba	llard Marine Co			
AFE / W.O.#:	ı	200089		ROV Operato	r:	Bri	an H.			
Pipe Support Anchor: W-17 (V			N-31A North /	Water Depth ((ft):					
W-31B S			South)				_			
Longitude:				Latitude:						
			ROV Visua	al Inspection L	og					
		ROV Trans	it Description		Video Lo	na	Video Reference			
(E/W of pipe			•		(start/en		(hh:mm:ss)			
Inspect So			uth to North		Video 4 – 2:	03:01	17:02:00			
Inspect Soi					Video 4 – 2:	14:41	17:13:40			
			ROV Visual	Inspection Res	sults					
	Loca	ation of								
Feature	FASTURE VICUAL (Taccification of Foature			eature	'	Video Reference				
Number	(w.r.t. pip	oe support)				(hh:mm:ss)				
			☐ Area of Intere	est □Holiday	(bare					
			metal) 🗆 Depo	osit 🗆	Other					
			☐ Area of Intere	est □Holiday	(bare					
			metal) \square Depo	osit 🗆	Other					
			☐ Area of Intere	,	,					
			metal) 🗆 Depo	osit 🗆	Other					
			☐ Area of Intere	,	•					
			metal) 🗆 Depo		Other					
			☐ Area of Intere	,	•					
			metal) 🗆 Depo		Other					
			☐ Area of Intere	,	,					
			metal) 🗆 Depo		Other					
			☐ Area of Intere	-	•					
			metal) Depo		Other					
			☐ Area of Interemental) ☐ Depo	•	(bare]Other					
			☐ Area of Intere							
			metal) □ Depo	,	Other					
			☐ Area of Intere							
			metal) \square Depo	•	Other					
			☐ Area of Intere							
			metal) \square Depo	•	Other					
			☐ Area of Intere							
			metal) \square Depo	,	Other					
			☐ Area of Intere							
			metal) 🗆 Depo	-	Other					



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended						
	Comments/Issu								
There were no holidays, areas of	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.								
113									
			12/14/17						
Contractor Signatu	ire		Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 Frame(HH:MM:SS) 17:05:53

B Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: | 9-20-17 | Frame(HH:MM:SS) | 17:05:54 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

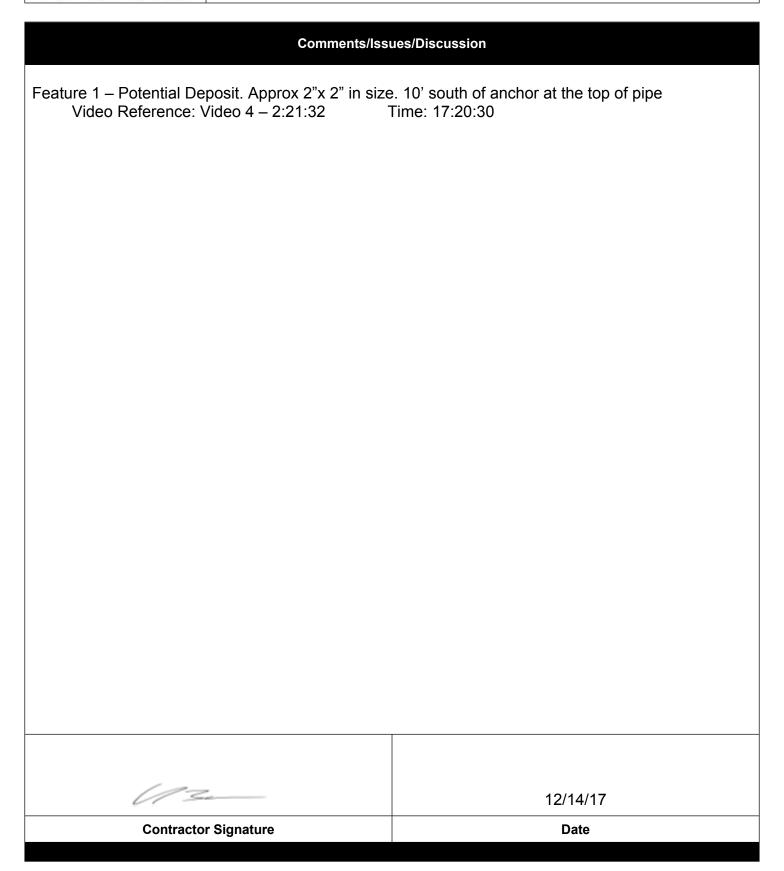


Date: 9-20-17 | Frame(HH:MM:SS) | 17:10:47 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		09/20/2	2017	Contractor:		Bal	lard Marine Co	_
AFE / W.O.# : 2000899				ROV Operato	r:	Bri	an H.	_
Pipe Suppor	t Anchor:	W-18 (\	W-31B South /	Water Depth (ft):			_
		W-31B)			,			
Longitude:				Latitude:				
			ROV Visi	ual Inspection L	og			
	RO	OV Transi	it Description		Video	Loa	Video Reference	_
l l			, travelling N/S)		(start/e		(hh:mm:ss)	
			uth to North		Video 4 –	2:18:10	17:17:08	
	Ш	speci 30i	atii to Nortii		Video 4 –	2:29:33	17:28:30	
			ROV Visua	I Inspection Res	sults			
Feature	Location of	Feature	\/!! \\	oo olfication at 5	tur	,	Video Reference	
Number	(w.r.t. pipe s	upport)	Visual Ci	assification of F	eature		(hh:mm:ss)	
1	10' south at to	op of		rest □Holiday	(bare metal)		17:20:30	
•	pipe		☐ Deposit	□Other			17.20.30	
			☐ Area of Inter	rest □Holiday	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	•	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other	<i>(</i> 1			_
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other	(hara matal)			_
			☐ Area of Inter☐ Deposit	□ Other	(bare metal)			
			☐ Area of Inter		(bare metal)			
			☐ Deposit	□ Other	(naie iliciai)			
			☐ Area of Inter		(bare metal)			
			☐ Deposit	□Other	(22.2 11000)			
			☐ Area of Inter		(bare metal)			_
			☐ Deposit	□Other	(: 2 2 : : : : : : : : : : : : : : :			
Dislodged co	oating observe	ed on	•	w.r.t. Lake Floor:			Fully augmented	_
_	r: □YES ⊠1		· •	ed, fully suspende			Fully suspended	







ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 17:19:18 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 17:25:07 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-20-17 | Frame(HH:MM:SS) | 17:23:13 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-20-17 Frame(HH:MM:SS)

17:21:20

Date: 9-20-17

Frame(HH:MM:SS)

17:21:10



General Information								
Date : 09/21/		2017	Contractor:	ontractor:		Ballard Marine Co		
AFE / W.O.#: 200089			ROV Operato	r:	Bri	an H.		
Pipe Support Anchor: W-19 (W-19 (\ South)	W-34A / W-34B Water Depth		(ft):			
Longitude:		Journy		Latitude:				
Ü								
			ROV Visual Inspection Log					
		sit Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)		
			· .		Video 5 - 0:00:07		16:28:24	
		mspect 30	uth to North		Video 5 – 0:13:23		16:41:40	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature Number Feature			Visual Classification of Feature			Video Reference (hh:mm:ss)		
		pe support)					(
1	4' south a pipe	it west of	⊠ Area of Inter	,	· ·		16:34:00	
	p.po		metal) 🗆 Dep		Other			
			☐ Area of Inter	,	(bare]Other			
			metal) □ Dep □ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	-	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	· ·			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	•			
			metal) Dep		Other			
			☐ Area of Intermetal)☐ Dep	•	(bare]Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully suspended					
Comments/Issues/Discussion						
Feature 1 – Possible dislodged coating. 4' south of anchor on west side of pipe. Size is approx. 6"x 6"						
613			12/14/17			
Contractor Signatu	ire		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:33:17 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/21/2017 4:28:36 PM





 Date:
 9-21-17
 Frame(HH:MM:SS)
 16:30:21
 Date:
 9-21-17
 Frame(HH:MM:SS)
 16:28:36



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:38:42 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:35:25 | Date: | Frame(HH:MM:SS)



General Information								
Date: 09/21/3		2017	Contractor:	ntractor:		Ballard Marine Co		
AFE / W.O.#: 200089			ROV Operato	r:	Bri	an H.		
Pipe Suppor	t Anchor:	W-20 (\	N-34B South /	Water Depth (
		W-34B	North)	-			_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
		e, travelling N/S)		(start/end)		(hh:mm:ss)		
		Inspect Sol			Video 5 - 0:14:31		16:42:48	
Inspect Sc		mspect 50	uth to North		Video 5 – 0:24:28		16:52:45	
			ROV Visual	Inspection Res	sults			
	Loo	ation of						
Feature Location of Feature			Visual Classification of Feature			Video Reference		
Number	Number (w.r.t. pipe support)			Visual Classification of Feature			(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					_
			metal) \square Depo	•	Other			
			☐ Area of Intere					_
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended			
	Comments/Issu	ues/Discussion				
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.						
There were no holidays, areas of interest, or anasaar characteristics observed around this antificity.						
113-			12/14/17			
Contractor Signatu	re		Date			



ROV Inspection Form for L5 Straits of Mackinac

South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 16:45:00

45:00 Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:52:31 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:50:08 | Date: | Frame(HH:MM:SS)

Comments:



			Genera	al Information				
Date:		09/21/2017 Contractor :				Bal	lard Marine Co	
AFE / W.O.#:	ı	200089		ROV Operato	r:	Brian H.		
Pipe Suppor	t Anchor:	W-21 (\	W-37A / W-	Water Depth	(ft):			
		37B)		•	` '			
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video	Loa	Video Reference	
			e, travelling N/S)		(start/		(hh:mm:ss)	
					Video 5 -	0:26:35	16:54:52	
		Inspect So	uth to North		Video 5 -	0:46:25	17:14:42	
			ROV Visual	Inspection Res	sults			
			IXOV VISUAI	mspection Res	Suits			
Feature		ation of eature	Vieuel Cla	ssification of F	- actura	·	/ideo Reference	
Number		pe support)	Visual Cia	ssilication of r	eature		(hh:mm:ss)	
	10' south			est □Holiday	(hare			
1	pipe	'	metal) Depo	,	Other	10.30.30		
_	West of p	ine 2' north						
2			metal) □ Depo	,	Other		17:05:39	
_	2' north o	n east of					47:44:00	
3	pipe		metal) \square Depo	,	Other		17:11:22	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	_	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit =	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	•			
			metal) \square Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,				
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	est □Holiday	(bare			



		metal) Deposit	t □Other					
Dislodged c	oating observed on or: □YES ⊠NO	Pipe Location w.r. (ie. partially buried,		Fully suspended				
			sues/Discussion					
	Feature 1 – Potential Deposit. 10' south of anchor at top of pipe, approx. size 3" x 3" Video Reference: Video 5 – 00:30:13 Time: 16:58:30							
Approx. size			on west side of pipe, a	about 10 o'clock position.				
Feature 3 – size 2" x 3"		north of anchor	on east of pipe about	3 o'clock position. Approx.				
	Reference: Video 5	- 00:43:05	Time: 17:11:22					
	013-			12/14/17				
	Contractor Signatu	ıre		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:58:47 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 16:58:47 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/21/2017 5:14:37 PM W-37A / W-37B

17:14:37

Date: 9-21-17 Frame(HH:MM:SS) 17:10:11 Date: 9-21-17 Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



ROV Inspection Form for L5 Straits of Mackinac





Feature #2

For all sections of dislodged coating or holidays, provide pictures below.
Included the date and time stamps associated with video surveillance.

9/21/2017 5:06:17 PM
W-37A / W-37B

Peature #2

For all sections of dislodged coating or holidays, provide pictures below.
Included the date and time stamps associated with video surveillance.

9/21/2017 5:06:17 PM
W-37A / W-37B





Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







			Genera	I Information				
Date:		09/21/2	09/21/2017 Contractor:			Bal	lard Marine Co	
AFE / W.O.#	•	200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-22 (\	N-36A / W-	Water Depth ((ft):			
		36B)					_	
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
		ROV Trans	it Description		Video	Log	Video Reference	
		(E/W of pipe	e, travelling N/S)		(start/e	end)	(hh:mm:ss)	
		Inspect So	uth to North		Video 5 –		17:16:27	
					Video 5 –	1:00:10	17:28:27	
			ROV Visual I	nspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Clas	sification of F	eature	'	/ideo Reference	
Number		pe support)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		*		(hh:mm:ss)	
1	3' north, e		⊠ Area of Intere	st □Holiday	(bare		17:21:38	
	west of pi	pe	metal) 🗆 Depo	sit 🗆	Other		17.21.00	
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) Depo		Other			
			☐ Area of Intere	•	(bare ∃Other			
			metal) □ Depo					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) Depoi	•	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
Dislodged co	oating observed on or: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor:	Fully suspended
		Comments/Issu	ies/Discussion	
of pipe) abo	Possible dislodged out 9 to 3 o'clock pos rence: Video 5 – 0:5	ssible	orth of anchor from e	ast to west of pipe (over top
	(// Z			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

South End of Affected and Non-Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 17:18:53
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 17:22:48
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 17:22:46 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ENBRIDGE

Date:	9-21-17	Frame(HH:MM:SS)	17:23:58	Date:	9-21-17	Frame(HH:MM:SS)	17:24:11
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			Gener	al Information				
Date:		09/21/2	09/21/2017 Contractor :			Ballard Marine Co		
AFE / W.O.#				ROV Operator:			an H.	
Pipe Suppor	t Anchor:	W-23 (\	N-35A / W-35B	Water Depth (
		South)			,		•	
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inchest So	uth to North		Video 5 – 1:	04:02	17:32:19	
		ilispect 30	util to North		Video 5 – 1:	14:28	17:42:45	
			DOV Viewel	Increation Dec				
			ROV VISUAI	Inspection Res	suits			
Feature		ation of	\/:1 @!			,	Video Reference	
Number	1	ature be support)	visual Cla	ssification of F	eature		(hh:mm:ss)	
	(νν.ι.ι. μι	ου συμμοτι)	☐ Area of Inter	est □Holiday	(hare			
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) □ Dep	,	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	•	•			
			metal) 🗆 Dep		Other			
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			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	,			
			metal) Dep		Other			
			☐ Area of Inter	,	*			
			metal) Dep		Other			
			☐ Area of Inter	-	(bare]Other			
			metal) 🗆 Dep	USIL				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended				
	Comments/Issu						
There were no holidays, areas of	of interest or unus	ual characteristics of	eserved around this anchor				
There were no holidays, areas c	interest, or unus	uai characteristics of	oscived around this anchor.				
(1/2			40/44/47				
07			12/14/17				
Contractor Signatu	re		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 17:33:50

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-21-17 Frame(HH:MM:SS) Date: Frame(HH:MM:SS) 17:42:28 Date:



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-21-17
 Frame(HH:MM:SS)
 17:39:09
 Date:
 Frame(HH:MM:SS)

Comments:



			Genera	al Information				
Date:		09/21/2	2017	Contractor:		Ballard Marine Co		
AFE / W.O.#:	AFE / W.O.#: 2000899			90 ROV Operator:			an H.	
Pipe Suppor	t Anchor:	W-24 (\	N-35B South /	Water Depth ((ft):			
		W-35B	North)				_	
Longitude:	ngitude: Latitude:							
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	a	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
		Inspect Sou	uth to North		Video 5 – 1:		17:44:15	
		порсот оот			Video 5 – 1:2	26:04	17:54:21	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of				_		
Feature Number		ature	Visual Cla	ssification of F	eature	'	Video Reference (hh:mm:ss)	
Mullipel	(w.r.t. pip	pe support)					(1111.111111.55)	
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere		,			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare ∃Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor: ully suspended)	Fully suspended				
	Comments/Issu						
There were no belideve, erose of	of interest or unus	ual abaraatariatiaa ak	poorwood around this another				
There were no holidays, areas of	of interest, or unus	uai characteristics of	served around this anchor.				
0/3-			12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 17:45:56 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 17:54:08 | Date: | Frame(HH:MM:SS)

Comments:



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 17:50:29 | Date: | Frame(HH:MM:SS)

Comments:



			Genei	ral Information			
Date:		09/21/2017 Contracto				Ball	ard Marine Co
AFE / W.O.#	:	200089	990	ROV Operator:			n H.
Pipe Suppor	t Anchor:	W-25 (W-39 / W-40)	Water Depth ((ft):		
Longitude:				Latitude:			
			ROV Visu	ual Inspection L	og		
			sit Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)
		Inspect Sc	outh to North		Video 5 – 1:31: Video 5 – 1:42:		17:59:23 18:10:20
			ROV Visua	I Inspection Res	sults		
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	- eature	V	ideo Reference (hh:mm:ss)
			☐ Area of Inter	rest □Holiday	(bare		
			metal) Dep		Other		
			☐ Area of Inter	,	`		
			metal) 🗆 Dep		Other		
	☐ Area of Inmetal) ☐ D			•	(bare ∃Other		
			☐ Area of Inte				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	oosit	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	osit	Other		
			☐ Area of Inter	,	`		
			metal) Dep		Other		
			☐ Area of Inter	,	•		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	•	`		
			metal) Dep		Other		
			☐ Area of Intermetal) ☐ Dep	,	(bare ∃Other		
			☐ Area of Inte				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) Dep	,	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	•	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor:	Fully suspended				
		ues/Discussion					
There were no holidays, areas of	of interest or unus	ual characteristics of	oserved around this anchor				
There were no nondaye, areas c	or interest, or aride		oorvoa aroana ano anonon.				
113-			12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:01:37 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:05:09 | Date: | Frame(HH:MM:SS)

Comments:



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:09:55 | Date: | Frame(HH:MM:SS)

Comments:



			Gener	al Information				
Date:		09/21/2	2017	Contractor:		Bal	llard Marine Co	
AFE / W.O.# : 2000899		90	ROV Operator:		Bri	an H.		
		W-41A South / North)	Water Depth (ft):					
Longitude:		77 127	Horeny	Latitude:				
3			ROV Visu	al Inspection L	oa			
		POV Trans	it Description		Video Lo	~	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
			uth to North		Video 5 – 1:4		18:13:45	
		пороск ос			Video 5 – 1:	55:34	18:23:51	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Cla	assification of F	eature	,	Video Reference (hh:mm:ss)	
	(w.i.t. pip	be support)	☐ Area of Inter	rest □Holiday	(hare			
			metal) □ Dep	•	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter metal) ☐ Dep	,	(bare]Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	_	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	1			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) □ Dep □ Area of Inter		Other			
			□ Area or inter metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended			
	Comments/Issu	ues/Discussion				
There were no holidays, areas of interest, or unusual characteristics observed around this anchor.						
W3-			12/14/17			
Contractor Signatu	ire		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:15:50 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS) 18:21:20 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:21:18 | Date: | Frame(HH:MM:SS)

Comments:



			Gener	al Information			
Date:		09/21/2	2017	Contractor:		Bal	lard Marine Co
AFE / W.O.#:		200089		ROV Operato	r:	Bri	an H.
Pipe Suppor	t Anchor:	W-27 (\ W-41B)	W-41A North /	Water Depth ((ft):		1
Longitude:				Latitude:			
			POV Visu	al Inspection L	00		
				ai inspection E			
			it Description		Video Log (start/end)		Video Reference (hh:mm:ss)
		(E/W OI PIPE	e, travelling N/S)		Video 5 – 1:56	-56	18:25:13
		Inspect So	uth to North		Video 5 – 2:08		18:36:45
			ROV Visual	Inspection Res	sults		
Feature		ation of ature	Visual Cla	assification of F	oaturo	\	Video Reference
Number	_	ne support)	visuai Cia	เออเทษสนิบที่ ปีโ	caluie		(hh:mm:ss)
4		to anchor		est □Holiday	(bare		40.00.00
1	Top of pip	e	metal) □ Dep	,	Other		18:28:30
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit \Box	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit \Box	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) Dep	osit \square	Other		
			☐ Area of Inter	,	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	`		
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			☐ Area of Inter metal)☐ Dep	-	(bare]Other		
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			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep		Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	osit \Box	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit \square	Other		
			☐ Area of Inter	•	•		
			metal) 🗆 Dep	osit	Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended			
	Comments/Issu	ues/Discussion				
Feature 1 – Possible dislodged coating. Starting at anchor to 10' south of anchor; various points from 10 to 1 o'clock						
Video Reference: Video 5 – 2:0	0:12 Tim	ne: 18:28:30				
013	_		12/14/17			
Contractor Signatu	re		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Fra

Comments:

Frame(HH:MM:SS) 18:28:13

Date:

Frame(HH:MM:SS)

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 Frame(HH:MM:SS)

18:29:53

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/21/2017 6:34:04 PM W-41A North / W-41B

Date: 9-21-17

Frame(HH:MM:SS)

18:31:22

9-21-17

Date:

Frame(HH:MM:SS)

18:34:04

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ENBRIDGE

Date: 9-21-17 Fra	rame(HH:MM:SS)	18:29:34	Date:	9-21-17	Frame(HH:MM:SS)	18:28:34
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			Genera	al Information				
Date:		09/21/2	2017	Contractor:		Ba	lard Marine Co	
AFE / W.O.#:	<u> </u>	200089		ROV Operato	r:	Brian H.		
Pipe Suppor	t Anchor:	W-28 (\	N-43A / W-	Water Depth (
		43B)					_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video L	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect sou	uth to north		Video 5 – 2:		18:40:00	
		mapect sot			Video 5 – 2:	20:01	18:48:17	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	'	Video Reference	
Number		pe support)					(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	(bare]Other			
			metal) □ Depo					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	-	Other			



		☐ Area of Interest	□Holiday (bare					
Dislodged of	oating observed on	metal) Deposit Pipe Location w.r.t.	☐ Other					
the lake floo		(ie. partially buried, fu		Fully suspended				
		Comments/Issu	ies/Discussion					
There were	There were no holidays, areas of interest, or unusual characteristics observed around this anchor.							
	0/3-	_		12/14/17				



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:41:54 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:48:09 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-21-17 | Frame(HH:MM:SS) | 18:46:09 | Date: | Frame(HH:MM:SS)



			Genera	I Information				
Date:		09/22/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:		20008990 ROV Operator :				an H.	
Pipe Suppor	rt Anchor:	W-29 (\	W-42A / W-	Water Depth (
		42B)			•		•	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	00	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		,			Video 1 – 0:	02:56	08:47:06	
		inspect 50	uth to North		Video 1 – 0:	14:16	08:58:25	
			ROV Visual	Inspection Res	sults			
Feature		ation of ature	Viewal Clar	acification of F		•	/ideo Reference	
Number	_	ne support)	Visuai Cias	ssification of F	eature	(hh:mm:ss)		
	(**.: þiþ	ос вирропту	☐ Area of Intere	est □Holiday	(hare			
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	,	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere	•	(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
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			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) Depo		Other			
			☐ Area of Intere	,	Other			
			metal) □ Depo □ Area of Intere					
			metal) □ Depo	•	Other			
	I		<u> псы)</u> — Беро	<u> </u>				



		☐ Area of Interest	□Holiday (bare □Other							
Dislodged c	oating observed on	metal) Deposit Pipe Location w.r.t.		Cully averaged ad						
the lake floo		(ie. partially buried, fu		Fully suspended						
		Comments/Issu	ues/Discussion							
There were no holidays, area's of interest, or other unusual characteristics observed at this anchor.										
	0/3-			12/14/17						
				1 = / 1 ⁻ T/ 1 /						



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 8:49:21

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

Date:	9-22-17	Frame(HH:MM:SS)	8:58:13	Date:	Frame(HH:MM:SS)	
_						

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 8:54:44
 Date:
 Frame(HH:MM:SS)



			Gener	al Information				
Date:		09/22/2	2017	Contractor:		Ba	llard Marine Co	
AFE / W.O.#				ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-30 (\	W-51A / W-51B	Water Depth (
		South)		•	,		•	
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Lo	ρα	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inchest So	uth to North		Video 1 – 0:	22:30	09:06:39	
		ilispect 30	util to North		Video 1 – 0:	35:21	09:19:30	
			BOV Viewel	Increation Dec	aulte.			
			ROV VISUAI	Inspection Res	suits			
Feature Number		ation of ature	Visual Cla	ssification of F	eature	•	Video Reference (hh:mm:ss)	
Number	(w.r.t. pip	e support)					(1111.11111.33)	
			☐ Area of Inter	,	,			
			metal) 🗆 Dep	osit \square	Other			
			☐ Area of Inter	,	,			
			metal) \square Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	•			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) Depe		Other			
			☐ Area of Intermetal) ☐ Dep	-	(bare]Other			
			☐ Area of Intermetal) ☐ Dep	•	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	•	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
	Comments/Issu	ues/Discussion						
There were no holidays, area's	There were no holidays, area's of interest, or other unusual characteristics observed at this anchor.							
W3-			12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:09:47
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 9:12:47 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:15:03
 Date:
 Frame(HH:MM:SS)



			Genera	al Information				
Date:		09/22/2	2017	Contractor:		Ballard Marine		
AFE / W.O.#:	AFE / W.O.#: 20008990 ROV			ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-31 (V	N-51B South /	Water Depth ((ft):			
		W-51B	North)				_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect Sou	uth to North		Video 1 - 0:		09:21:16	
		mapect out			Video 1 – 0:	48:00	09:32:10	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of						
Feature Number		ature	Visual Cla	ssification of F	eature	'	Video Reference	
Number	(w.r.t. pip	pe support)				(hh:mm:ss)		
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo	osit	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	(bare ∃Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended			
the lake floor.	Comments/Issu					
There were no holidays, area's	of interest, or othe	r unusual characteri	stics observed around this			
anchor.						
1/3-	-		12/14/17			
Contractor Signatu	ire		Date			



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:23:50
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

Date: 9-22-17 Frame(HH:MM:SS) 9:31:51 Date: Frame(HH:MM:SS)

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:29:17
 Date:
 Frame(HH:MM:SS)



			Gener	al Information			
Date:		09/22/2	2017	Contractor:		Ва	llard Marine Co
AFE / W.O.#		200089		ROV Operato	r:	Bri	ian H.
Pipe Suppor	rt Anchor:	W-32 (\ 48B)	W-48A / W-	Water Depth	(ft):		
Longitude:				Latitude:			
			ROV Visu	al Inspection L	og		
		ROV Trans	it Description		Video L	-oa	Video Reference
			e, travelling N/S)		(start/e		(hh:mm:ss)
					0:52:4	12	09:36:51
		ilispect 30	uth to North		1:05:2	20	09:49:30
			DOV Viewel	Increation De			
			ROV VISUAI	Inspection Res	suits		
Feature Number	Fea	ature	Visual Cla	ssification of F	- eature	,	Video Reference (hh:mm:ss)
	From anch	e support)	∇ Ann and Intern		(1		
1	south at to		☑ Area of Intermetal)☐ Dependent	•	Other		09:40:53
			☐ Area of Inter				
			metal) \square Dep	•	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) \square Dep	•	Other		
			☐ Area of Inter				
			metal) \square Dep	,	Other		
			☐ Area of Inter				
			metal) □ Dep	•	Other		
			☐ Area of Inter				
			metal) \square Dep	_	Other		
			☐ Area of Inter				
			metal) Dep	•	Other		
			☐ Area of Inter				
			metal) 🗆 Dep	,	Other		
			☐ Area of Inter		(bare		
			metal) 🗆 Dep	-	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit \Box	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit \Box	Other		
			☐ Area of Inter	est □Holiday	(bare		
			metal) 🗆 Dep	osit 🗆	Other		
			☐ Area of Inter	est □Holiday	(bare		
			motel) Den	ooit –	Othor		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
	Comments/Issu							
Feature 1: Possible dislodge coo'clock.	Feature 1: Possible dislodge coating. From anchor to 8' south at top of pipe about 10 o'clock to 2							
Video Reference: Video 1 -	0:56:43 T	ime: 9:40:53						
W3-	_		12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 9:40:33 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/22/2017 9:49:52 AM

W-48A / W-48B

Temp: 54.1 °F



Date: 9-22-17 Frame(HH:MM:SS) 9:44:35 Date: 9-22-17 Frame(HH:MM:SS) 9:49:52



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:47:03
 Date:
 Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

9/22/2017 9:42:30 AM

W-48A / W-48B





 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:42:28
 Date:
 9-22-17
 Frame(HH:MM:SS)
 9:42:30



			Genera	al Information				
Date:		09/22/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:	20008990 ROV Operato			r:	Bri	an H.	
Pipe Suppor	rt Anchor:	W-33 (\	W-53A South /	Water Depth (
		W-53A	North)				_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
		Inneact So	uth to North		Video 1 – 1:		09:53:20	
		пірэссі оо			Video 1 – 1:	26:16	10:10:25	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of				_	// D /	
Feature Number	Fe	ature	Visual Cla	ssification of F	eature	'	/ideo Reference (hh:mm:ss)	
MUIIDEI		oe support)					(1111.111111.33)	
1	At anchor		⊠ Area of Intere	•	`		10:02:12	
<u> </u>	South on t	top of pipe	metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare Other			
			,					
			☐ Area of Interemental) ☐ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended				
	Comments/Issu	ues/Discussion					
NOTE: Video was labeled incorrectly (backwards) as W-53A North / W-53A South.							
Feature 1: from anchor to 15' south at top of pipe possible multiple patches of dislodged coating Video Reference: Video 1 – 1:18:02 Time: 10:02:12							
112			10/14/17				
Contractor Signatu	ıre		12/14/17 Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17

17 Frame(HH:MM:SS)

9:59:41

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS)

10:10:09

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 10:08:09 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ENBRIDGE

Date: 3 22 17 France(Firs.Wivi.00) Fr	Date:	9-22-17	Frame(HH:MM:SS)	10:03:50	Date:	9-22-17	Frame(HH:MM:SS)	10:02:37
--	-------	---------	-----------------	----------	-------	---------	-----------------	----------



			Genera	al Information				
Date:		09/22/2	/22/2017 Contractor:			Ва	Ballard Marine Co	
AFE / W.O.#: 200089				ROV Operator	r:	Bri	an H.	
			W-53A North /	Water Depth (
Longitude:		W-53B)		Latitude:				
3			ROV Visua	al Inspection L	oa			
			it Description		Video Log		Video Reference	
		(E/W of pipe	e, travelling N/S)		(start/end Video 1 – 1:2		(hh:mm:ss) 10:12:29	
		Inspect So	uth to North		Video 1 – 1.2		10:12:29	
					1140011114	1.0.	10.20.00	
						_		
			ROV Visual	Inspection Res	sults			
_	Loca	ation of						
Feature Number		ature	Visual Classification of Feature			'	Video Reference (hh:mm:ss)	
Number	(w.r.t. pip	e support)					(1111.111111.55)	
			☐ Area of Intere	•	,			
			metal) 🗆 Depo	osit \square	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	-			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	,	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	est □Holiday	(bare			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issi	ues/Discussion	
There were no holidays, area's anchor.	of interest, or othe	r unusual characteris	tics observed around this
///=-			10/14/47
Contractor Signate	ıre		12/14/17 Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 10:15:53 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: | 9-22-17 | Frame(HH:MM:SS) | 10:16:06 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 10:21:07 | Date: | Frame(HH:MM:SS)



			Genera	al Information				
Date: 09/22/2			2017 Contractor:			Bal	lard Marine Co	
AFE / W.O.#: 200089				ROV Operato	r:	Bri	an H.	
Pipe Support Anchor: W-35 (70B)			N-70A / W-	Water Depth ((ft):		I	
Longitude:				Latitude:				
Ü			ROV Visua	al Inspection L	og			
		ROV Trans	it Description	<u> </u>	Video Lo		Video Reference	
			e, travelling N/S)		(start/end		(hh:mm:ss)	
		, ,	,		Video 1 – 1:4		10:27:45	
		inspect Soi	uth to North		Video 1 – 1:	54:41	10:38:50	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	Video Reference		
Number	(w.r.t. pip	pe support)	- 10 0000				(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	•	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere		-			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
	oating observed on	Pipe Location w.r.t.	Lake Floor:	Fully suspended
the lake floo	r: □YES ⊠NO	(ie. partially buried, fu	ully suspended)	, ,
		Comments/Issu	ues/Discussion	
There were	no holidays, area's	of interest, or othe	r unusual characteris	tics observed at this anchor.
	1/3-	_		12/14/17



ROV Inspection Form for L5 Straits of Mackinac

	Contractor Signature	Date
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Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 10:30:51 Date: Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 10:38:38 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 10:35:28 Date: Frame(HH:MM:SS)



			Genera	I Information				
Date: 09/22/2			/2017 Contracto		ractor:		lard Marine Co	
AFE / W.O.#: 200089				ROV Operator	r:	Bri	an H.	
Pipe Support Anchor: W-36 (N-69A / W-	Water Depth (ft):			
69B)								
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
		ROV Transi	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)	(start/end		(hh:mm:ss)		
		Inspect Sou	uth to North		Video 1 – 1:		10:40:09	
					Video 1 – 2:	06:30	10:50:40	
ROV Visual Inspection Results								
Feature Number	Fe	ation of ature be support)	Visual Classification of Feature			Video Reference (hh:mm:ss)		
1	12' south, pipe		☑ Area of Intere metal)☐ Depo	,	(bare Other		10:42:18	
			☐ Area of Intere	st □Holiday				
			☐ Area of Intere	st □Holiday	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere metal) ☐ Depo	•	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere metal) ☐ Depo	,	(bare Other			
			☐ Area of Intere	st □Holiday	(bare Other			
			☐ Area of Intere	,	(bare Other			
			☐ Area of Intere	st □Holiday				



Dislodged coating observed on the lake floor: □YES ⊠NO Pipe Location w.r.t. Lake Floor: (ie. partially buried, fully suspended) Fully suspended			☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
the lake floor: □YES ☑NO (ie. partially buried, fully suspended) Comments/Issues/Discussion Feature 1 – Potential Deposit. 12' south of anchor at top of pipe. Approx. 2"x2" Video Reference: Video 1 – 1:58:08 Time: 10:42:18	Dislodged co	pating observed on			Fully avenanded
Feature 1 – Potential Deposit. 12' south of anchor at top of pipe. Approx. 2"x2" Video Reference: Video 1 – 1:58:08 Time: 10:42:18					Fully suspended
Video Reference: Video 1 – 1:58:08 Time: 10:42:18			Comments/Iss	ues/Discussion	
Video Reference: Video 1 – 1:58:08 Time: 10:42:18					
12/44/17	Feature 1 – Video R	Potential Deposit. 1 eference: Video 1 –	2' south of anchor · 1:58:08 Tir		x. 2"x2"
12/4/17					
12/44/47					
12/14/17					
12/14/17					
42/44/47					
12/44/47					
12/44/47					
12/14/17					
12/14/147					
12/14/17					
12/14/17					
12/14/17					
12/14/17					
12/14/17					
12/14/17					
12/14/17					
19/14/17					
10/14/17					
19/14/17					
19/14/17					
19/14/17					
19/14/17					
10/14/17					
17/14/1/		013_	_		12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17

Comments:

Frame(HH:MM:SS)

10:42:03

Date:

Frame(HH:MM:SS)

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS)

10:50:07

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

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	u			Н.	ш	

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 10:50:05 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







			Gener	al Information					
Date:		09/22/2	09/22/2017 Contractor :			Bal	lard Marine Co	-	
AFE / W.O.#		200089			r:	Brian H.			
Pipe Suppor	Pipe Support Anchor: W-37 (W-68A			Water Depth ((ft):		I		
Longitude:		11 00/1	Latitude:					_	
ROV Visual Inspec					oa			ı	
		BOV Trans					Video Reference		
			it Description e, travelling N/S)		Video Log (start/end)		(hh:mm:ss)		
			,		Video 2 – 0		11:26:02	_	
		inspect 50	uth to North		Video 2 – 0	:10:42	11:36:18		
								_	
			ROV Visual	Inspection Res	sults				
	Loca	ation of					"	•	
Feature Number		ature	Visual Cla	assification of F	eature	'	/ideo Reference (hh:mm:ss)		
- Italiibei		pe support)					(111.111111.00)	_	
1	7' north ea	ast to topof	. End of interest Endiday (bare				11:31:42		
	Pipe		metal) 🗆 Dep		Other			_	
			☐ Area of Inter	,	,				
			metal) □ Dep □ Area of Inter		Other			-	
			metal) \square Dep	_	Other				
			☐ Area of Inter					_	
			metal) □ Dep	•	Other				
			☐ Area of Inter					_	
			metal) 🗆 Dep	=	Other				
			☐ Area of Inter	est □Holiday	(bare				
			metal) 🗆 Dep	osit	Other			_	
			☐ Area of Inter						
			metal) 🗆 Dep		Other			_	
			☐ Area of Inter	•	,				
			metal) 🗆 Dep		Other			_	
			☐ Area of Inter	,	,				
			metal) □ Dep □ Area of Inter		Other			_	
			□ Area of Inter metal) □ Dep	,	Other				
			☐ Area of Inter					_	
			metal) \square Dep	,	Other				
			☐ Area of Inter					_	
			metal) \square Dep	,	Other				
			☐ Area of Inter		(bare			_	
			metal) 🗆 Dep	•	Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended						
THE TAKE HOOF. THE STATE OF THE	Comments/Issu								
Feature 1– Possible dislodged o	coating. 7' north of	anchor on east, top,	& west of pipe						
Video Reference: Video	2 – 0.06.06	Time: 11:31:42							
6/3_	_		12/14/17						
Contractor Signatu	ıre		Date						



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 11:30:34 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 11:36:08
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 11:34:57 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

11:31:44







			Gener	al Information				
Date:		09/22/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#:		200089	90	ROV Operato	r:	Brian H.		
Pipe Suppor	t Anchor:	W-38 (\ W-68B)	W-68A North /	Water Depth ((ft):			
Longitude:				Latitude:				
U			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Lo	200	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
					Video 2 – 0:		11:39:19	
		Inspect So	uth to North		Video 2 – 0:	23:54	11:49:30	
			ROV Visual	Inspection Res	sults			
			NOV VISual	mopeodion rec	Juits			
Feature Number	Fe	ation of eature	Visual Cla	assification of F	eature	'	/ideo Reference (hh:mm:ss)	
	(w.r.t. pip	pe support)	☐ Area of Inter	east □Haliday	/hara			
			metal) \square Dep	•	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	_	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit 🗆	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter		,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	•			
			metal) □ Dep □ Area of Inter		Other			
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended		
	Comments/Issu	ues/Discussion			
There were no holidays, area's	of interest, or othe	r unusual characteris	stics observed at this anchor.		
W3-			12/14/17		
Contractor Signatu	ire		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS)

11:41:16 Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 11:41:16 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 11:47:35 | Date: | Frame(HH:MM:SS)



			Genera	I Information				
Date:		09/22/2	2017	Contractor:		Ва	llard Marine Co	
AFE / W.O.#	:	200089		ROV Operato	r:	Bri	an H.	
Pipe Suppor	rt Anchor:	W-39 (V	N-71A / W-	Water Depth (ft):			
		71B)						
Longitude:				Latitude:				
			ROV Visua	I Inspection L	og			
			it Description e, travelling N/S)		Video Lo (start/end		Video Reference (hh:mm:ss)	
					Video 2 – 0:		11:57:30	
		inspect Sol	uth to North		Video 2 – 0:4	14:59	12:10:35	
ı			ROV Visual	Inspection Res	sults			
	Loo	ation of						
Feature Number	Fe	ature be support)	Visual Clas	ssification of F	eature	•	Video Reference (hh:mm:ss)	
	(Ψ.ι.ι. ρι	oc support)	☐ Area of Intere	est □Holiday	(hare			
			metal) □ Depo	•	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•				
			metal) 🗆 Depo		Other			
			☐ Area of Interemental) ☐ Depo	•	(bare Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	sit =	Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	,			
			metal) □ Depo		Other			
			metal) \square Depo	•	Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
	oating observed on	Pipe Location w.r.t.	Lake Floor:	Fully suspended
the lake floo	r: □YES ⊠NO	(ie. partially buried, fu	ılly suspended)	r dily dadponada
		Comments/Issu	ies/Discussion	
There were	no holidays, area's	of interest, or othe	r unusual characteris	tics around this anchor.
	1/3-	_		12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-2

9-22-17 Frame(HH:MM:SS)

12:03:11

Date: 9-22-17

Frame(HH:MM:SS)

12:08:19

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

Comments.

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 12:08:21 | Date: | Frame(HH:MM:SS)



			Genei	ral Information				
Date:		09/22/2	2017	Contractor:		Bal	lard Marine Co	_
AFE / W.O.#:		200089				Brian H.		
Pipe Suppor	t Anchor:	W-40 (\ South)	W-71B / W-72A	Water Depth ((ft):			
Longitude:				Latitude:				_
			ROV Visu	ıal Inspection L	og			
		P∩V Trans	it Description	<u> </u>	Video L	00	Video Reference	
			e, travelling N/S)		(start/er		(hh:mm:ss)	
					Video 2 – 0	,	12:22:04	
		inspect Soi	uth to North		Video 2 – 1	:05:44	12:31:20	
			ROV Visua	I Inspection Res	sults			
	Loca	ation of		-				
Feature		ature	Visual Cla	assification of F	eature	'	/ideo Reference	
Number	(w.r.t. pip	oe support)				(hh:mm:ss)		
			☐ Area of Inte	,	(bare			
			metal) 🗆 Dep	osit _	Other			
			☐ Area of Inte	,				
			metal) 🗆 Dep		Other			
			☐ Area of Inte	,				
			metal) 🗆 Dep		Other			
			☐ Area of Inte	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,				
			metal) 🗆 Dep		Other			_
			☐ Area of Intermetal) ☐ Dep	,	Other			
			☐ Area of Inte					_
			metal) \square Dep	=	Other			
			☐ Area of Inte					_
			metal) □ Dep	•	Other			
			☐ Area of Inter					_
			metal) \square Dep	,	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	-	Other			
			☐ Area of Inte	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inte	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inte	,	,			
			metal) 🗆 Dep	osit 🗆	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		fully suspended					
	Comments/Issu	ies/Discussion						
There were no holidays, area's anchor.	There were no holidays, area's of interest, or other unusual characteristics observed around this anchor.							
113	_		12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 F

Frame(HH:MM:SS)

12:23:51

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-22-17 | Frame(HH:MM:SS) | 12:23:51 | Date: 9-22-17 | Frame(HH:MM:SS) | 12:26:59



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 12:31:13 | Date: | Frame(HH:MM:SS)



			Genera	al Information				
Date:		09/22/2	2017	Contractor:		Ballard Marine Co		
AFE / W.O.#:		200089		ROV Operato	r:		an H.	
Pipe Suppor	t Anchor:	W-41 (\	N-72A South /	Water Depth (
			North)		` ,		-	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect So	uth to North		Video 2 – 1:	10:06	12:35:43	
		mapect out			Video 2 – 1:	19:48	12:45:25	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	'	Video Reference	
Number		pe support)					(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) Depo		Other			
			☐ Area of Intere	,				
			metal) ☐ Depo		Other			
			□ Area of Interest metal) □ Depo	•	Other			
	l		<u> ποιαί) 🗆 </u> Deρί	JUIL				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu		
There were no holidays, area's	of interest, or unus	sual characteristics of	bserved around this anchor.
113-	_		12/14/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Fr

Frame(HH:MM:SS)

12:37:03

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 12:40:17 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 12:45:07
 Date:
 Frame(HH:MM:SS)



			Gener	ral Information				
Date:		09/22/2	2017	Contractor:		Ballard Marine Co		
AFE / W.O.#:		200089				Brian H.		
Pipe Suppor	Pipe Support Anchor: W-42 (W-72B			Water Depth ((ft):			
Longitude:			Latitude:					
			ROV Visu	ıal Inspection L	og			
		P∩V Trans	it Description	<u> </u>	Video Lo	200	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
					Video 2 – 1:		12:47:43	
		inspect 50	uth to North		Video 2 – 1:	33:59	12:59:35	
			ROV Visual	Inspection Res	sults			
_	Loca	ation of				_		
Feature Number	Fe	ature	Visual Cla	assification of F	eature	'	/ideo Reference (hh:mm:ss)	
เสนเทษเ		e support)					(1111.11111.55)	
1	5' North, t	op of pipe	⊠ Area of Inter	,	`		12:53:56	
<u> </u>			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) ☐ Dep		Other			
			☐ Area of Inter	,	(bare]Other			
			metal) □ Dep □ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	=	Other			
			☐ Area of Inter					
			metal) □ Dep	•	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	,	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	-	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit [Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep	osit	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully suspended						
	(ie. partially buried, for Comments/Issu	ues/Discussion					
Feature 1 – Potential Deposit. 5' North of anchor at top of pipe. Approx. 3" x 3"							
Video Reference: Video 2 -	– 1:28:20 Ti	me: 12:53:56					
013.			12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 12:50:13 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17` Frame(HH:MM:SS) 12:50:12 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

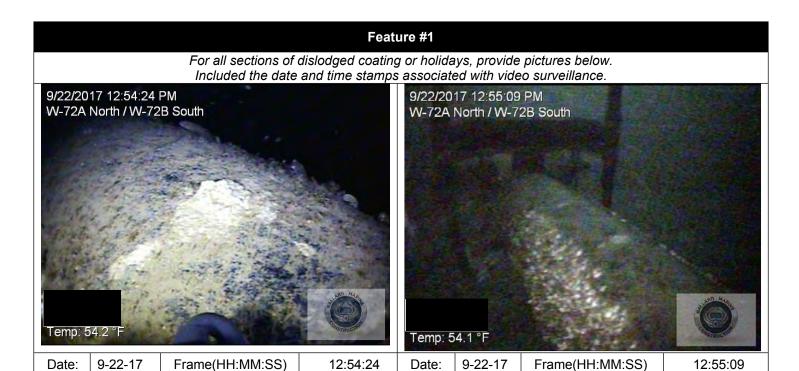
For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 12:53:29 Date:

eate: Frame(HH:MM:SS)







			Genera	I Information					
Date:		09/22/2017 Contrac		Contractor:	or:		Ballard Marine Co		
AFE / W.O.#	:	20008990		ROV Operator	r:	Brian H.			
Pipe Suppor	rt Anchor:	W-43 (\	N-72B South /	Water Depth ((ft):				
		W-72B	North)				_		
Longitude:				Latitude:					
			ROV Visua	al Inspection L	og				
		ROV Trans	it Description		Video Lo	oa	Video Reference		
			e, travelling N/S)		(start/en		(hh:mm:ss)		
		Inspect So			Video 2 - 1:35:31		13:01:08		
		mspect oo			Video 2 – 1:	44:23	13:10:01		
			ROV Visual	Inspection Res	sults				
_	Loca	ation of							
Feature Number		ature	Visual Clas	Visual Classification of Feature			Video Reference		
number	(w.r.t. pip	e support)				(hh:mm:ss)			
			☐ Area of Intere	,	,				
			metal) \square Depo	sit 🗆	Other				
			☐ Area of Intere	•	,				
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			metal) Depo		Other				
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			☐ Area of Intere						
			metal) \square Depo	,	Other				
			☐ Area of Intere						
			metal) □ Depo	,	Other				
			☐ Area of Intere						
			metal) □ Depo	•	Other				
			☐ Area of Intere						
			metal) 🗆 Depo	•	Other				
			☐ Area of Intere		(bare				
			metal) 🗆 Depo	•	Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully suspended						
the lake floor: □YES ⊠NO (ie. partially buried, fully suspended) Comments/Issues/Discussion							
There were no holidays, areas of interest, or unusual characteristics observed at this anchor.							
11 Ea-			12/14/17				
Contractor Signatu	re		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 13:03:29 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 13:03:28 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 13:07:43
 Date:
 Frame(HH:MM:SS)



			Gener	al Information				
Date:		09/22/2017		Contractor:		Ballard Marine Co		
AFE / W.O.#:				ROV Operator:		Bri	an H.	
Pipe Suppor	t Anchor:	W-44 (\	N-72B North /	Water Depth (
		W-72C)					_	
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Lo	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect Soi	-		Video 2 – 1:	43:43	13:12:19	
		mapect oo			Video 2 – 1:	55:59	13:21:35	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	Video Reference		
Number		pe support)	7.000.01	dai Ciassification of Feature			(hh:mm:ss)	
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Depo	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Depo	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Depo	osit \Box	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) \square Dep	osit \square	Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Depo		Other			
			☐ Area of Inter	-	`			
			metal) 🗆 Depo		Other			
			☐ Area of Inter	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Inter	,	,			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depe	,	(bare]Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully suspended						
the lake floor: YES NO (ie. partially buried, fully suspended) Comments/Issues/Discussion							
There were no holidays, area's of interest, or unsual characteristics observed at this anchor.							
013	_		12/14/17				
Contractor Signatu	ire		Date				



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 13:14:12

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 13:19:44 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 13:21:22
 Date:
 Frame(HH:MM:SS)



			Genera	I Information				
Date:		09/22/2	09/22/2017 Contractor:			Bal	lard Marine Co	
AFE / W.O.#:	AFE / W.O.# : 200089				r:	Bri	an H.	
Pipe Suppor	Pipe Support Anchor: W-45 (V 54B)		W-54A / W-	Water Depth ((ft):			
Longitude:		340)		Latitude:				
Longitudoi			POV Visua	I Inspection L	00			
		D0\/ T		i ilispection L			\". \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			sit Description e, travelling N/S)		Video L (start/er		Video Reference (hh:mm:ss)	
			·		Video 2 – 2		13:30:30	
		Inspect Sou	uth to North		Video 2 – 2		13:55:15	
			ROV Visual I	nspection Res	sults			
	Loca	ation of						
Feature Number		ature	Visual Clas	sification of F	eature	Video Reference (hh:mm:ss)		
Number	(w.r.t. pip	e support)					(111.111111.33)	
			☐ Area of Intere	•	`			
			metal) Depo		Other			
			☐ Area of Intere	,	`			
			metal) □ Depo □ Area of Intere		Other			
			metal) □ Depo	,	Other			
			☐ Area of Intere					
			metal) ☐ Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere	st □Holiday	(bare			
			metal) 🗆 Depo	sit 🗆	Other			
			☐ Area of Intere		`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) Depo		Other			
			☐ Area of Interemetal)☐ Depo	,	(bare]Other			
			☐ Area of Intere					
			metal) Depo	,	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			



		☐ Area of Interest	□Holiday (bare □Other	
Dislodged co	oating observed on	metal) Deposit Pipe Location w.r.t.		Fully gives and ad
the lake floo		(ie. partially buried, fu		Fully suspended
		Comments/Issu	ies/Discussion	
There were anchor.	no holidays, areas o	of interest, or other	unusual characteris	tics observed around this
	113-			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 13:35:07 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 13:43:22 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

13:46:18





Date:



			Gener	al Information			
Date:		09/22/2	2017	Contractor:	or:		lard Marine Co
AFE / W.O.#		200089		ROV Operato	r:	Bria	an H.
Pipe Suppor	t Anchor:	W-46 (\ 57B)	N-57A / W-	Water Depth ((ft):		
Longitude:		3757		Latitude:			
Ü			BOV Vieu	al Inspection L	00		
				iai ilispection L			
			it Description		Video Log		Video Reference (hh:mm:ss)
		(E/VV of pipe	e, travelling N/S)		(start/end) Video 3 - 3:5	۵	14:28:11
		Inspect So	uth to North		Video 3 – 35:1		14:59:22
			ROV Visual	Inspection Res	sults		
Feature Number	Fe	ation of ature	Visual Classification of Feature			\	/ideo Reference (hh:mm:ss)
1	8' North, I		⊠ Area of Inter	,	,	14:52:02	
·	Side,1"x5		metal) 🗆 Dep		Other		
			☐ Area of Inter	,	· ·		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	-		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	(bare]Other		
			metal) □ Dep □ Area of Inter				
			metal) □ Dep	,	Other		
			☐ Area of Inter				
			metal) □ Dep	,	Other		
			☐ Area of Inter				
			metal) 🗆 Dep	-	Other		
			☐ Area of Inter	rest □Holiday	(bare		
			metal) 🗆 Dep	osit	Other		
			☐ Area of Inter	•	`		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	•	,		
			metal) 🗆 Dep		Other		
			☐ Area of Inter	,	,		
			metal) ☐ Dep		Other		
			☐ Area of Inter metal)☐ Dep	,	(bare]Other		
			☐ Area of Inter				
			metal) □ Dep	•	Other		



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
_	oating observed on or: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor:	Fully suspended
		Comments/Issu	ies/Discussion	
Roughly 1:0		n pipe. Deposit me	chor and top/east sid asures approx. 1" x 5 me: 14:52:02	le of pipe approx. 8' North. 5" in size.
	013			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 14:46:02
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-22-17 | Frame(HH:MM:SS) | 14:34:40 | Date: 9-22-17 | Frame(HH:MM:SS) | 2:59:14



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Frame(HH:MM:SS)



Comments:

9-22-17

Date:

14:58:55

Date: 9-22-17

Frame(HH:MM:SS)

14:52:54



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: Frame(HH:MM:SS)

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

			Gener	al Information				
Date:		09/22/2	2017	Contractor:	tractor:		llard Marine Co	
AFE / W.O.#	•	200089		ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-47 (\	N-59A-A / W-	Water Depth ((ft):			
		59A Soi	uth)				_	
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video Log	1	Video Reference	
		(E/W of pipe	e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect So	uth to North		Video 3 – 0:42		15:06:16	
		порост ос			Video 3 – 0:53	3:38	15:17:50	
			ROV Visual	Inspection Res	sults			
_ ,	Loca	ation of						
Feature Number	Fe	ature	Visual Cla	ssification of F	eature	,	Video Reference (hh:mm:ss)	
Number		oe support)					(1111.111111.33)	
1	15' south	at top of		☑ Area of Interest □Holiday (bare			15:09:00	
<u> </u>	pipe		metal) Dep	osit \square	Other			
			☐ Area of Inter	,	`			
			metal) Dep		Other			
			☐ Area of Inter	,	,			
			metal) Dep		Other			
			☐ Area of Inter	,	,			
			metal) \square Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) Dep		Other			
			☐ Area of Inter	-	(bare]Other			
			metal) □ Dep					
			□ Area of Intermetal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) Dep	,	Other			
			☐ Area of Inter					
			metal) Dep	,	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	_	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) □ Dep	osit \Box	Other			

metal)

Deposit



Dislodged coating observed on the lake floor: □YES ⊠NO	Fully suspended							
	(ie. partially buried, fu	ues/Discussion						
Feature 1 – Possible dislodged Video Reference: Video 3	coating. 15' south - 0:45:48	of anchor at top of pi Time: 15:09:00	ipe					
613	_		12/14/17					
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 15:24:37

Date:

Frame(HH:MM:SS)

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 15:13:17 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 15:09:17 | Date: | Frame(HH:MM:SS)



			Gener	al Information				
Date:	09/22/20		2017 Contractor:			Ballard Marine Co		
AFE / W.O.#:		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-48 (\ W-59A	N-59A South /	Water Depth ((ft):			
Longitude:		W 3371	TVOTETT)	Latitude:				
g			ROV Visu	al Inspection L	oa			
		POV Trans	it Description				Video Reference	
			e, travelling N/S)		Video Lo (start/end		(hh:mm:ss)	
			uth to North		Video 3 – 0:	57:48	15:22:00	
		ilispect 30	util to North		Video 3 – 1:	08:23	15:32:35	
			ROV Visual	Inspection Res	sults			
Feature		ation of ature	Vieual Cla	assification of F	Coaturo	,	√ideo Reference	
Number		pe support)	Visual Cia	assincation of t	eature	(hh:mm:ss)		
		,	⊠ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	,			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	(bare]Other			
			metal) □ Dep □ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	_	Other			
			☐ Area of Inter					
			metal) 🗆 Dep	•	Other			
			☐ Area of Inter	est □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	`			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	•	•			
			metal) 🗆 Dep	<u> </u>	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu	ues/Discussion	
There were no holidays, area's	of interest, or othe	r unusual characteris	tics observed at this anchor.
112			12/14/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 15:26:26 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 15:24:37 Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 15:29:07
 Date:
 Frame(HH:MM:SS)



			Gener	al Information				
Date:		09/22/2	2017	Contractor:		Ballard Marine Co		_
AFE / W.O.#:		200089	20008990 ROV Operation			Bri	an H.	
Pipe Suppor	t Anchor:	W-49 (\ W-59B	W-59A North / South)	Water Depth ((ft):			
Longitude:				Latitude:				
			ROV Visu	al Inspection L	og			
		ROV Trans	it Description		Video L	oa	Video Reference	
			e, travelling N/S)		(start/er		(hh:mm:ss)	
		Inspect So	uth to North		Video 3 – 1		15:34:37	
		ороск со			Video 3 – 1	:25:18	15:49:30	
			ROV Visual	Inspection Res	sults			
Feature Number	Fe	ation of ature be support)	Visual Classification of Feature			Video Reference (hh:mm:ss)		
1		top of pipe		,	(bare Other	15:37:00		
2	2' south, t 3" X 12"	op of pipe		est □Holiday	(bare Other		15:40:55	
			☐ Area of Inter	est □Holiday	(bare Other			
			☐ Area of Intermetal) ☐ Dep	,	(bare Other			
			☐ Area of Intermetal) ☐ Dep	,	(bare Other			
			☐ Area of Inter metal) ☐ Dep	,	(bare Other			
			☐ Area of Intermetal) ☐ Dep		(bare Other			
			☐ Area of Inter					
			metal) 🗆 Dep	osit \Box	Other			
			☐ Area of Inter	,				
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	-			
			metal) Dep		Other			
			☐ Area of Inter metal)☐ Dep	,	(bare]Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
the lake 11001.								
	Comments/Issu	ues/Discussion						
Feature 1 – Potential Deposi	it: 15' south of and	hor, top of pipe 11 to	12 o'clock position, approx.					
Video Reference: Video 3	3 – 1:12:48 Tii	me: 15:37:00						
Feature 2 – Potential Deposit: 2' south of pipe, top of pipe 12 o'clock position, approx. 3"x12" Video Reference: Video 3 – 1:16:43 Time: 15:40:55								
113-			12/14/17					
Contractor Signatu	re		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 15:36:51
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

9-22-17 Date: Frame(HH:MM:SS) 15:45:32 Date: Frame(HH:MM:SS) Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9-22-17 Frame(HH:MM:SS) Frame(HH:MM:SS) Date: 15:49:22 Date:



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-22-17

Frame(HH:MM:SS)

15:38:54

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







			Genera	al Information				
Date:		09/22/2	2017	Contractor:	ntractor:		Ballard Marine Co	
AFE / W.O.#:		200089		ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	W-50 (\	N-59B South /	Water Depth (
		W-59B	North)				_	
Longitude:				Latitude:				
			ROV Visua	al Inspection L	og			
		ROV Trans	it Description		Video L	oa	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
		Inspect So	uth to North		Video 3 – 1	:27:16	15:51:28	
		mapect out			Video 3 – 1	:38:12	16:02:20	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Cla	ssification of F	eature	'	/ideo Reference	
Number		pe support)					(hh:mm:ss)	
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) \square Depo	osit 🗆	Other			
			☐ Area of Intere	,	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	-	•			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	•			
			metal) Depo		Other			
			☐ Area of Interemental) ☐ Depo	,	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) \square Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	,	Other			
			☐ Area of Intere		1			
			metal) \square Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu	ues/Discussion	
**NOTE: Video and pictures are	e mislabeled as "V	V-59B South / W-58A	A South"
There were no holidays, area's	of interest, or othe	r unusual characteris	stics observed at this anchor.
113-			12/14/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 Frame(HH:MM:SS) 15:55:04

Comments:

Anchor

Date:

Frame(HH:MM:SS)

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 15:52:50 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 15:59:04
 Date:
 Frame(HH:MM:SS)



General Information									
Date: 09/22/2		2017	Contractor:	Contractor:		lard Marine Co			
AFE / W.O.#	:	200089	90	ROV Operato	r:	Bri	an H.		
Pipe Support Anchor: W-51 (V		W-59B North /	Water Depth ((ft):					
		W-58A	South)						
Longitude:				Latitude:					
ROV Visual Inspection Log									
		ROV Trans	it Description		Video Log		Video Reference		
		(E/W of pipe	e, travelling N/S)		(start/end)		(hh:mm:ss)		
		Inspect So	uth to North		Video 3 – 1:43:23		16:07:35		
					Video 3 – 1:58:04		16:22:16		
			ROV Visual	Inspection Res	sults				
Feature Number	Fe	ation of ature be support)	Visual Cla	/isual Classification of Feature			Video Reference (hh:mm:ss)		
1	South side		☑ Area of Interemental)☐ Dependent	•	(bare Other	16:08:23			
2	South side	*		,	(bare Other	16:11:47			
3	North side, from 5- 10' from anchor		⊠ Area of Interemental) □ Deport □ Deport	,	(bare Other		16:18:56		
			☐ Area of Interemental) ☐ Depo	,	(bare Other				
			☐ Area of Interemetal) ☐ Depe	osit 🗆	Other				
			☐ Area of Interemental) ☐ Depo	,	(bare Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	,	`				
			metal) 🗆 Depo		Other				
			☐ Area of Intere	,	`				
			metal) Depo		Other				
			☐ Area of Interemental) ☐ Depo	,	(bare]Other				
			☐ Area of Intere						
			metal) □ Depo	,	Other				
			☐ Area of Intere						
			metal) \square Depo	,	Other				
			☐ Area of Intere	est □Holiday	(bare				
			metal) 🗆 Depo	osit 🗆	Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended					
Comments/Issues/Discussion								
Feature 1– Potential Deposit. East side of pipe, 3-5 o'clock position, directly below anchor 4" wide by 8" wide								
Video Reference: Video 3 – 1:44:08 Time: 16:08:19								
Feature 2 - Possible dislodged of pipe.	-	_	hor to 15' south, mostly top					
Video Reference: Video 3	3 – 1:47:35	Time: 16:11:47						
Feature 3 - Possible dislodged of from east to top to west sides of		north of anchor to 10	O' North of anchor, ranging					
Video Reference: Video		Time: 16:18:56						
013		12/14/17						
Contractor Signatu	ire		Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 16:11:49 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: Frame(HH:MM:SS) Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



9/22/2017 4:09:04 PM W-59B North / W-58A South

Date:

9-22-17

Frame(HH:MM:SS)

16:09:49

Date:

9-22-17

Frame(HH:MM:SS)

16:09:04

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22

9-22-17

Frame(HH:MM:SS)

16:12:27

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date:

9-22-17

Frame(HH:MM:SS)

16:19:02

Date:

Frame(HH:MM:SS)



General Information								
Date : 09/22/		2017	Contractor:	Contractor:		lard Marine Co		
		200089	90	ROV Operato	r:	Bri	an H.	
• • • • • • • • • • • • • • • • • • • •		W-52 (\ W58A N	W-58A South / North)	Water Depth ((ft):			
Longitude:				Latitude:				_
			ROV Visu	ıal Inspection L	og			
		POV Trans				eo Log Video Reference		
			it Description e, travelling N/S)		Video Log (start/end)		(hh:mm:ss)	
				Video 3 – 1:59:19		16:23:31		
		inspect 50	uth to North		Video 3 – 2:11:54		16:36:05	
			ROV Visual	Inspection Res	sults			
	Loca	ation of						
Feature		ature	Visual Classification of Feature			Video Reference (hh:mm:ss)		
Number		e support)						
1		15' South.				16:27:00		
<u> </u>	All around		metal) □ Deposit □ Other					
2	1' South, \	West Side	☐ Area of Interest ☐ Holiday (bare			16:28:25		
	42 November V	Mant Oida	metal) 🗆 Dep		Other			
3 1' North, West Side		vest Side	⊠ Area of Inter	,	`		16:34:47	
			metal) 🗆 Dep					
			☐ Area of Intermetal)☐ Dep	,	(bare]Other			
			,	Area of Interest Holiday (bare				
			metal) □ Dep	,	Other			
			☐ Area of Inter					
			metal) \square Dep	,	Other			
			☐ Area of Inter		(bare			
			metal) 🗆 Dep	=	Other			
			☐ Area of Inter	rest □Holiday	(bare			
			metal) 🗆 Dep	osit	Other			
			☐ Area of Inter	,	`			
			metal) \square Dep		Other			
			☐ Area of Inter	,	-			
			metal) 🗆 Dep		Other			
			☐ Area of Inter	,	•			
			metal) Dep		Other			
			☐ Area of Intermetal)☐ Dep	,	Other			
			☐ Area of Inter					
			metal) □ Dep	,	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		fully suspended				
Comments/Issues/Discussion							
Feature 1 - Possible dislodged coating in various areas from anchor to 15' south. 10 o'clock to 2' oclock position on Pipe Video Reference: Video 3 – 2:02:43 Time: 16:27:00							
Feature 2 – Potential Deposit,1' south of anchor at 10 o'clock position on west Side. Approx. 2" diameter Video Reference: Video 3 – 2:04:13 Time: 16:28:25							
Feature 3 – Potential Deposit, 1 diameter Video Reference: Video 3	n west side. Approx. 4"						
1							
013			12/14/17				
Contractor Signatu	re	Date					



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 16:26:48 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-22-17 | Frame(HH:MM:SS) | 16:35:55 | Date: 9-22-17 | Frame(HH:MM:SS) | 16:30:37



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-22-17
 Frame(HH:MM:SS)
 16:33:09
 Date:
 Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-22-17 | Frame(HH:MM:SS) | 16:27:15 | Date: | Frame(HH:MM:SS)

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-22-17 | Frame(HH:MM:SS) | 16:28:35 | Date: 9-22-17 | Frame(HH:MM:SS) | 16:30:04



ROV Inspection Form for L5 Straits of Mackinac

Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







General Information									
Date: 09/23		09/23/2	09/23/2017		Contractor:		Ballard Marine Co		_
		200089	90	ROV Oper	ator:		Bria	an H.	
		W-53 (V W-58B)	W-58A North /	Water Dep	th (ft):				
Longitude:		11 3027		Latitude:					_
Ü			ROV Visu	al Inspectio	n Log				
		ROV Transi	it Description			Video Log		Video Reference	
			e, travelling N/S)			(start/end)		(hh:mm:ss)	
		·			00:00:14		08:54:57		
		inspect noi	m South to North			00:10:53		09:05:35	
			ROV Visual	Inspection	Results				
Factoria	Loca	tion of						lides Defenses	
Feature Number	1	ature	Visual Classification of Feature				Video Reference (hh:mm:ss)		
- Hamber		e support)							
1	1 to 15' so top west o		⊠ Area of Inter		day (bare	08:	57:00		
	top west o	n pipe	metal) 🗆 Dep		Other				
			☐ Area of Inter		day (bare				
			metal) □ Dep □ Area of Inter		Other				_
			metal) □ Dep		day (bare □Other				
			☐ Area of Inter		day (bare				_
			metal) □ Dep		Other □				
			☐ Area of Inter		day (bare				
			metal) 🗆 Dep		□Other				
			☐ Area of Inter	est □Holi	day (bare				
			metal) 🗆 Dep	osit	□Other				
			☐ Area of Inter		day (bare				
			metal) 🗆 Dep		□Other				
			☐ Area of Inter		day (bare				
			metal) 🗆 Dep		Other				
			☐ Area of Inter		day (bare				
			metal) □ Dep □ Area of Inter		Other				
			□ Area of Intermetal) □ Dep		day (bare □Other				
			☐ Area of Inter		day (bare				
			metal) □ Dep		Other □				
			☐ Area of Inter		day (bare				
			metal) 🗆 Dep		□Other				
			☐ Area of Inter		day (bare				
			metal) 🗆 Dep	osit	□Other				



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu	ues/Discussion	
Feature 1 – 1 to 15' south of and various spots	chor from about 9	o'clock to 3o'clock, p	ossible dislodged coating in
Video Reference: 00:02:17	Time: 8:5	7:00	
013-			12/14/17
Contractor Signatu	re		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:00:16 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 8:56:44 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 Frame(HH:MM:SS) 9:02:36

2:36 Date:

Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 8:56:42 | Date: | Frame(HH:MM:SS)





			Gene	ral Information				
Date:		09/23/2	2017	Contractor:		Ва	llard Marine Co	
AFE / W.O.#	:	200089		ROV Operator	:		ian H.	
Pipe Suppor	t Anchor:	W-54 (\	N-60A / W-60B	Water Depth (1				
		South)			•		_	
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
		ROV Trans	it Description		Video Lo	20	Video Reference	
			e, travelling N/S)		(start/en		(hh:mm:ss)	
					0:17:34		09:12:16	
		Inspect Sou	uth to North		0:27:42	2	09:22:25	
			ROV Visua	I Inspection Res	ults			
Feature Number		of Feature be support)	Visual Cla	assification of F	eature		Video Reference (hh:mm:ss)	
		,	☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, ,	bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	, (bare metal)			
			☐ Deposit	Other				
			☐ Area of Inter	• `	bare metal)			
			☐ Deposit	□Other	hara matal)			
			☐ Area of Inter☐ Deposit	est ⊔Hollday (□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	bare metal)			
			☐ Area of Inter		bare metal)			
			☐ Deposit	□Other	,			
			☐ Area of Inter		bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday (bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	rest □Holiday (bare metal)			
			☐ Deposit	□Other				
Dislodged c	_		_	w.r.t. Lake Floor:			Fully suspended	
the lake floo	r: □YES	\boxtimes NO	(ie. partially burie	ed, fully suspende	d)		. any caopondod	



Comments/Issu	ues/Discussion
There were no holidays, area's of interest, or other	unusual characteristics observed at this anchor.
///=	
Contractor Signature	12/14/17 Date
Contractor Orginature	Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:14:48 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:12:30 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:19:57 | Date: | Frame(HH:MM:SS)



			General	Information				
Date:		09/23/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#	:	200089		ROV Operato	r:	Bria	an H.	
Pipe Suppor	rt Anchor:	W-55 (\ W-60B		Water Depth ((ft):		I	
Longitude:		11 002	· · · · · · · · · · · · · · · · · · ·	Latitude:				
			POV Visual	Inspection L	og			
		ROV Trans	it Description	mspection L	Video Log		Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect Sou	uth to North		28:40		09:23:20	
		mspect out	util to North		39:45		09:34:25	
			ROV Visual I	spection Res	sults			
Feature		ation of		161 41 6=	. ,		/ideo Reference	
Number		ature be support)	Visual Clas	sification of F	eature		(hh:mm:ss)	
	15' north a			st □Holiday	(bare		00.00.00	
1	pipe	•	metal) \square Depos	,	Other		09:29:00	
			☐ Area of Interes	t □Holiday	(bare			
			metal) 🗆 Depos	sit 🗆	Other			
			☐ Area of Interes	,	(bare			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	,	,			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	,	(bare]Other			
			metal) ☐ Depos					
			metal) \square Depos	,	Other			
			☐ Area of Interes					
			metal) □ Depos	-	Other			
			☐ Area of Interes					
			metal) 🗆 Depos	-	Other			
			☐ Area of Interes	t □Holiday	(bare			
			metal) Depos		Other			
			☐ Area of Interes	,	,			
			metal) 🗆 Depos		Other			
			☐ Area of Interes	,	`			
			metal) Depos		Other			
			☐ Area of Interestmetal)☐ Depos	,	(bare]Other			
			☐ Area of Interes					
			metal) ☐ Depos	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, for		Fully suspended
	Comments/Iss	ues/Discussion	
Feature 1 - Potential Deposit. 15 Time: 9:29:00 Video Time:	5' north of anchor a 34:42	at top of pipe approx	. 4" x 5"
013			12/14/17
Contractor Signatu	re		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-23-17
 Frame(HH:MM:SS)
 9:25:10
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:25:13 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:29:25 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-23-17 Frame(HH:MM:SS) 9:29:55 Date: 9-23-17 Frame(HH:MM:SS) 9:30:08



			Gene	ral Information				
Date:		09/23/2	2017	Contractor:		Ва	Ballard Marine Co	
AFE / W.O.#	:	200089	90	ROV Operator	:	Bri	an H.	
Pipe Suppor	rt Anchor:	W-56 (\	W-61A / W-61B)	Water Depth (1	ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection Lo	og			
ROV Transit Description (E/W of pipe, travelling N/S)			Video Lo (start/end 45:42		nd)	Video Reference (hh:mm:ss) 09:40:08		
Inspect South to North					57:20		09:52:05	
			ROV Visua	I Inspection Res	ults			
Feature Number	Location of (w.r.t. pipe s		Visual Cla	assification of F	eature		Video Reference (hh:mm:ss)	
1	1' south on ea	ast of		est □Holiday (□Other	bare metal)		09:41:00	
2	5' south on ea	ast to	☑ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)		09:43:00	
3	From anchor north	to 10'	☑ Area of Inter☑ Deposit	est □Holiday (□Other	bare metal)		09:49:00	
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit	est □Holiday (□Other	bare metal)			
			☐ Area of Inter☐ Deposit		bare metal)			
			☐ Area of Inter		bare metal)			



the lake floor: □YES ⊠NO	(ie. partially buried, fu		Fully suspended
	Comments/Iss	ues/Discussion	
Feature 1 – Potential Deposit 1' 4"x5"	south of anchor on	east side of pipe abo	out 3 o'clock. Size approx.
Feature 2 – Potential Deposit 5' 18"	south of anchor at	about 3 o'clock to 12	o'clock. Size approx. 1" x
Feature 3 – Possible dislodged of	coating from ancho	r to 10' north all the w	ay around the pipe.
0/3-			12/14/17
Contractor Signatu	ire		Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:45:52 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 9:44:36 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.

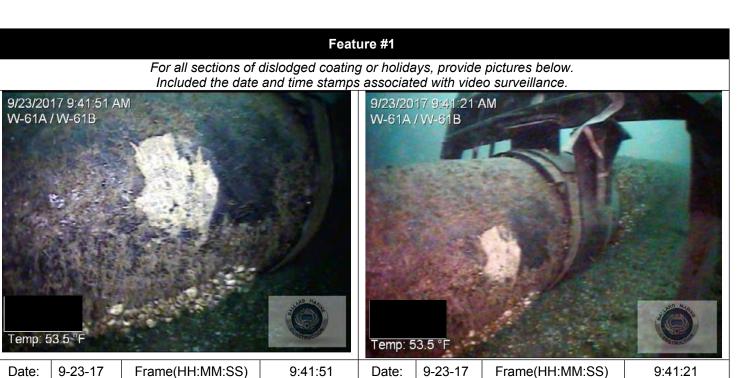


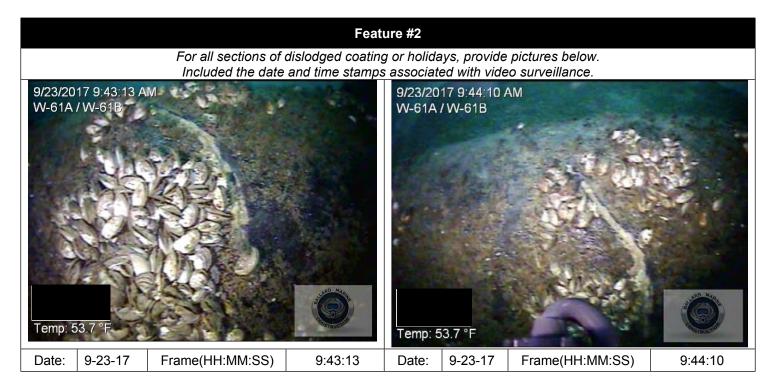
Date: 9-23-17 Frame(HH:MM:SS)

Date:

Frame(HH:MM:SS)







Feature 2 Notes: 1st Picture shows view on the east side of pipe, approx. 3:00 position. 2nd Picture shows continuation of possible white spot from above with it terminating at approx. 12:00 position.



ROV Inspection Form for L5 Straits of Mackinac



Feature 3 Notes: Picture shows possible dislodged coating beginning at anchor and continuing to the north.



			Genera	I Information				
Date:		09/23/2	2017	Contractor:		Ba	llard Marine Co	
AFE / W.O.#:	ı	200089		ROV Operato	r:	Bri	ian H.	
Pipe Suppor	t Anchor:	W-57 (\	N-63A / W-	Water Depth ((ft.):			
		63B)						
Longitude:			Latitude:					
			ROV Visua	I Inspection L	og			
		ROV Trans	it Description		Video Log	1	Video Reference	
			e, travelling N/S)		(start/end)		(hh:mm:ss)	
		Inspect Sou	uth to North		1:11:45		10:06:27	
		пороск оск			1:22:52		10:17:35	
			ROV Visual I	nspection Res	sults			
F. (Loca	ation of					Video Before	
Feature Number	Fe	ature	Visual Clas	ssification of F	eature	,	Video Reference (hh:mm:ss)	
Hullibel	(w.r.t. pip	pe support)					(1111.111111.33)	
				•	,			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	·			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	·			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	•	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	·			
			metal) Depo		Other			
			☐ Area of Intere metal) ☐ Depo	•	(bare]Other			
			☐ Area of Intere					
			metal) □ Depo	-	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) Depo	•	Other			
			☐ Area of Intere					
			metal) □ Depo	•	Other			
			☐ Area of Intere					
			metal) 🗆 Depo	•	Other			
			☐ Area of Intere		(bare			
			metal) 🗆 Depo	•	Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
	oating observed on	Pipe Location w.r.t.	Lake Floor:	Fully suspended
the lake floo	r: □YES ⊠NO	(ie. partially buried, fu	ully suspended)	r dily suspended
		Comments/Issu	ues/Discussion	
There were	no holidays, areas	of interest, or other	unusual characteris	tics observed at this anchor.
	0/3-			40/44/47
	01			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

	Contractor Signature	Date
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Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:10:18 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

Comments.

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:14:33 | Date: | Frame(HH:MM:SS)



			Gene	ral Information				
Date:		09/23/2	2017	Contractor:		Ва	llard Marine Co	_
AFE / W.O.#	:	200089	90	ROV Operator	1:	Bri	an H.	
Pipe Suppor	t Anchor:	W-58 (\	V-65A / W-65B)	Water Depth (ft):			
Longitude:				Latitude:				
			ROV Visu	ual Inspection L	og			
		ROV Transi	t Description		Video L		Video Reference	
		(E/W of pipe	, travelling N/S)		(start/e	,	(hh:mm:ss)	
Inspect South to North			1:28:0		10:22:49			
	1:5			1:51:5	5	10:36:38	_	
								_
			ROV Visua	I Inspection Res	sults			
Feature	Location	of Feature					Video Reference	
Number	1	ne support)	Visual Cla	assification of F	eature		(hh:mm:ss)	
		east side of		est □Holiday ((bare metal)		40.04.00	
1	pipe		☐ Deposit	□Other	,		10:24:00	
•	5' south -	west side		est □Holiday ((bare metal)		10.20.00	
2	of pipe		☐ Deposit	□Other	,		10:28:00	
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other	`			
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			□ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	,	(bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	•	(bare metal)			
			☐ Deposit	Other	4 1 1			_
			☐ Area of Inter	est ⊔Holiday (□Other	(bare metal)			
			☐ Deposit☐ Area of Inter		(hara matal)			_
			☐ Deposit	⊖Other	(bare metal)			
			☐ Area of Inter		(bare metal)			_
			□ Deposit	□Other				
			☐ Area of Inter		(bare metal)			
			☐ Deposit	□Other				_
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
			☐ Area of Inter	est □Holiday ((bare metal)			
			☐ Deposit	□Other				
Dislodged c	_		-	w.r.t. Lake Floor:			Fully suspended	
the lake floo	r: □YES	\boxtimes NO	(ie. partially burie	ed, fully suspende	d)		,,	



ROV Inspection Form for L5 Straits of Mackinac

Comments/Issues/Discussion

Feature 1– Potential Deposit, 5' south of anchor on east side of pipe about 5 o'clock. Size approx. 2" x 2"

Video Reference: 1:29:17 Time: 10:24:00

Feature 2 – Possible dislodged coating 5' south of anchor on top and west side of pipe, about 9:00 to

12:00.

Video Reference: 1:31:58 Time: 10:26:40

Contractor Signature	Date
01=	12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:30:51 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:30:55 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:35:25 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac



For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-23-17

Frame(HH:MM:SS)

10:24:15

Date: 9-23-17

Frame(HH:MM:SS)

10:25:41

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9

9-23-17

Frame(HH:MM:SS)

10:28:14

Date:

9-23-17

Frame(HH:MM:SS)

10:29:47



			Gener	ral Info	ormation			
Date:		09/23/2	2017	Cor	ntractor:		Ва	llard Marine Co
AFE / W.O.#:		200089	90	RO	V Operato	r:	Bri	an H.
		W-59 (\ South)	·		ter Depth (ft):		
Longitude:				Lati	itude:			
			ROV Visu	ıal İns	spection L	oq		
		ROV Trans	it Description			Video	Log	Video Reference
			e, travelling N/S)			(start/e		(hh:mm:ss)
			ith to North			1:43		10:38:13
		ilispect sot	THE ROLLIE			1:56:	:04	10:50:46
			ROV Visual	Insp	ection Res	sults		
Feature Number	Fea	ation of ature e support)	Visual Cla	assific	cation of F	eature	,	Video Reference (hh:mm:ss)
1		top of pipe			□Holiday	(bare Other		10:40:00
2	10' north o	on east and	✓ Area of Intermetal)✓ Dep	rest	□Holiday	(bare Other		10:45:00
3	At north si anchor	ide of		rest	□Holiday	(bare Other		10:44:00
			☐ Area of Intermetal) ☐ Dep		□Holiday □	(bare Other		
			☐ Area of Inter metal) ☐ Dep		□Holiday □	(bare Other		
			☐ Area of Inter metal) ☐ Dep		□Holiday □	(bare Other		
			☐ Area of Inter		\square Holiday	•		
			metal) 🗆 Dep			Other		
			☐ Area of Inter		□Holiday	,		
			metal) □ Dep □ Area of Inter		 □Holiday	Other		
			metal) □ Dep		-	Other		
			☐ Area of Inter		□Holiday			
			metal) 🗆 Dep		-	Other		
			☐ Area of Inter		□Holiday	(bare		
			metal) 🗆 Dep	osit		Other		
			☐ Area of Inter		\square Holiday	,		
			metal) 🗆 Dep			Other		
			☐ Area of Inter		□Holiday	•		
			metal) 🗆 Dep	OSIT		Other		



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended		
	Comments/Issu	ues/Discussion			
Feature 1 – Potential Deposit 10 Video Reference: 1:45:53 T		on top of pipe, size a	pprox. 2" x 2"		
Feature 2 – Potential Deposit 10' north of anchor on east and top of pipe, about 10 to 12 o'clock Video Reference: 1:50:17 Time: 10:45:00am					
Feature 3 – Possible dislodged video Reference: 1:49:46					
113-	_		12/14/17		
Contractor Signatu	re		Date		



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:40:05 | Date: | Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:41:34 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: Frame(HH:MM:SS) Date: Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac



For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date:

9-23-17

Frame(HH:MM:SS)

10:40:36

Date: 9-23-17

Frame(HH:MM:SS)

10:40:54

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.







ROV Inspection Form for L5 Straits of Mackinac

Feature #3

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 Frame(HH:MM:SS)

10:44:29 Date:

Frame(HH:MM:SS)



			Genera	al Information				
Date:		09/23/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#: 20		200089	90	ROV Operato	r:	Bri	an H.	
Pipe Suppor	t Anchor:	,	V-64B South / North)	Water Depth (/ater Depth (ft):			
Longitude:		WOIB	TTOTCHY	Latitude:				_
3			BOV View	al Inspection L	0.0			
				ai ilispection L				
			it Description		Video Log		Video Reference	
		(E/VV of pipe	e, travelling N/S)		(start/end) 1:56:56		(hh:mm:ss) 10:51:39	_
		Inspect So	uth to North		2:07:17		11:01:56	_
			ROV Visual	Inspection Res	sults			
Feature		tion of ature	Visual Cla	ssification of F	eature	'	/ideo Reference	
Number	(w.r.t. pip	e support)					(hh:mm:ss)	
1	Just south	of anchor		est □Holiday	(bare		10:52:00	
•			metal) 🗆 Depo	osit 🗆	Other		10.02.00	
2	Just north on top of p			,	`		10:59:00	
	on top or p	лре	metal) 🗆 Depo		Other			_
			☐ Area of Intere	,				
			metal) 🗆 Depo		Other			_
			☐ Area of Intere	,	`			
			metal) Depo		Other			_
			☐ Area of Interemental) ☐ Depo	,	(bare ∃Other			
			☐ Area of Intere					_
			metal) Depo	,	Other			
			☐ Area of Intere					_
			metal) \square Depo	-	Other			
			☐ Area of Intere	est □Holiday	(bare			
			metal) 🗆 Depo	osit 🗆	Other			
			☐ Area of Intere	,	`			
			metal) 🗆 Depo		Other			
			☐ Area of Intere	,	,			
			metal) 🗆 Depo		Other			_
			☐ Area of Intere	,	`			
			metal) Depo		Other			_
			☐ Area of Interdent ☐ Depo	•	(bare ∃Other			
			☐ Area of Intere					_
			metal) □ Depo	•	Other			



Dislodged coating observed on the lake floor: □YES ⊠NO	Pipe Location w.r.t. (ie. partially buried, fu		Fully suspended
	Comments/Issu	ues/Discussion	
Feature 1 – Possible dislodged and east side of pipe Video Reference: 1:57:35	coating. Starting a Time: 10:52		uing south approx. 10', on top
Feature 2 – Potential Deposit just Video Reference: 2:04:31	st north of anchor Time: 10:5		approx. 2" x 3"
		Γ	
			40/44/47
Contractor Signatu	ire		12/14/17 Date



ROV Inspection Form for L5 Straits of Mackinac

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23

9-23-17 Frame(HH:MM:SS)

10:53:33

Date:

Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17

Frame(HH:MM:SS)

10:57:23

Date:

Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:58:45 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 10:52:17 | Date: 9-23-17 | Frame(HH:MM:SS) | 11:00:04

Feature #2

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-23-17 | Frame(HH:MM:SS) | 10:59:23 | Date: 9-23-17 | Frame(HH:MM:SS) | 11:00:04



			Gener	al Information				
Date:		09/23/2	2017	Contractor:		Bal	lard Marine Co	
AFE / W.O.#:		200089	90	ROV Operate	or:	Bri	an H.	
Pipe Suppor	t Anchor:	W-61 (\ 67B)	N-67A / W-	Water Depth	(ft):			
Longitude:				Latitude:				
			ROV Visu	al Inspection I	oa			
		201/2					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
			it Description e, travelling N/S)		Video Log (start/end)		Video Reference (hh:mm:ss)	
					2:09:11		11:03:54	
		Inspect So	uth to North		2:18:18		11:13:00	
			ROV Visual	Inspection Re	esults			
Feature		ation of				,	/ideo Reference	
Number		ature	Visual Cla	assification of	Feature	,	(hh:mm:ss)	
	Just north	oe support) of		rest □Holida	y (bare			
1	anchor,ea		metal) \square Dep		y (bare □Other		11:08:00	
			☐ Area of Inter					
			metal) □ Dep		□Other			
			☐ Area of Inter					
			metal) 🗆 Dep		□Other			
			☐ Area of Inter	rest □Holida	y (bare			
			metal) 🗆 Dep	osit	□Other			
			☐ Area of Inter	rest □Holida	y (bare			
			metal) 🗆 Dep	osit	□Other			
			☐ Area of Inter		` `			
			metal) 🗆 Dep		□Other			
			☐ Area of Inter		' '			
			metal) □ Dep □ Area of Inter		Other			
			☐ Area of Inter metal) ☐ Dep	•	y (bare ⊒Other			
			☐ Area of Inter					
			metal) \square Dep		Under			
			☐ Area of Inter					
			metal) \square Dep		□Other			
			☐ Area of Inter		y (bare			
			metal) 🗆 Dep	· ·	□Other			
			☐ Area of Inter	rest □Holida	y (bare			
			metal) 🗆 Dep	osit	□Other			
			☐ Area of Inter		,			
			metal) 🗆 Dep	osit	□Other			



		☐ Area of Interest metal) ☐ Deposit	□Holiday (bare □Other	
Dislodged coating observed on the lake floor: □YES ⊠NO		Pipe Location w.r.t. (ie. partially buried, fu	Lake Floor:	Fully suspended
		Comments/Issu	ues/Discussion	
approx. 2"x2	Potential Deposits ji 2", the other is appr ference: 2:13:28	ust north of anchor ox. 6" x 6" Time: 11:08		at 4:00 position. One spot is
	U3			12/14/17



ROV Inspection Form for L5 Straits of Mackinac

Contractor Signature	Date

Overall South Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



 Date:
 9-23-17
 Frame(HH:MM:SS)
 11:05:35
 Date:
 Frame(HH:MM:SS)

Comments:

Anchor

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 11:10:59 | Date: | Frame(HH:MM:SS)



ROV Inspection Form for L5 Straits of Mackinac

Comments:

Overall North Affected Area

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.



Date: 9-23-17 | Frame(HH:MM:SS) | 11:13:00 | Date: | Frame(HH:MM:SS)

Comments:

Feature #1

For all sections of dislodged coating or holidays, provide pictures below. Included the date and time stamps associated with video surveillance.





Date: 9-23-17 | Frame(HH:MM:SS) | 11"10"07 | Date: 9-23-17 | Frame(HH:MM:SS) | 11:08:57

