

68. Summary of actions taken by Marathon in response to Geomorphic report

1. Bending strain assessment performed based on 2018 IMU dataset.
 - a. Analysis of this data set resulted in Item 765 being a Priority 1 Feature.
2. Project created for site investigation for Item 765.
3. Geomorphic completed site investigation 7/7/2021
 - a. Investigation resulted in a bank stability rating of 7.
 - b. "Recommend increased monitoring of bank stability and repeat depth of cover surveys. Consider additional armoring of left bank to decrease ongoing bank instability."
4. Planned strain capacity testing of WoodPat girth welds to compare against Item 765 reported strain.
5. Planned 2022 bending strain and pipeline movement analysis
 - a. Compare 2018 IMU to 10/27/2021 IMU
6. Strain capacity report for WoodPat pipeline received 10/18/2021
 - a. Marathon elected to complete strain capacity testing of welds from the 22" WoodPat system.
 - b. Girth welds analyzed yielded strain capacity of 0.73% and 1.5% respectively.
 - i. Item 765 reported as having strain of 0.35%.

After receiving the Geomorphic report, Marathon took additional steps to understand the risks associated with the location. Marathon completed a girth weld strain capacity analysis that showed the strain capacity of the girth weld to be more than twice the strain measured.

Based on the recommendation of the Geomorphic site investigation, Marathon was planning on completing a bending strain and pipeline movement analysis in 2022.



Marathon Strain Investigation Report



Marathon CURO WPAT Strain Capacit