



WILLBROS GOVERNMENT SERVICES (U.S.), LLC

A WILLBROS COMPANY

20 August 2015

To Whom It May Concern:

Willbros Government Services has completed the Mag Particle (MT) and Vacuum Box (LT) Inspection of TK 5 as described in Section 4.5 PROJECT TASK AND SEQUENCES of the TK 5 Warranty Work Plan. The inspection was performed by WGS Level II NDE Technicians under the direction of QC Manager Matt Halderman.

The results of this MT and LT Inspection are as follows:

A total of Six Hundred Eighty Two (682) previous repair locations were checked in TK 5 per the procedures outlined in the TK 5 Warranty Work Plan Scope of Work (SOW). Reconciliations were made to the QC Log as discrepancies in numbering were found in comparison to the log dated 12 February 2015. All Six Hundred Eighty Two (682) of the previous repair locations failed to meet the acceptance criteria outlined in the SOW for the MT examination. Four Hundred Fifteen (415) of Four Hundred Seventy Nine (479) locations Passed Vacuum Box Leak Testing (LT), Two Hundred Three (203) locations were unable to be tested due to geometry of the repair. Sixty Four (64) locations failed the Vacuum Box Leak Test. During this process other welds in close proximity to the WGS repairs were also tested and inspected for any other rejectable conditions. Some locations showed linear indications in the adjacent existing welds; none of these failed the vacuum box test.

All failed locations will be repaired per the API 653 Code specifications as outlined in the WP and all indications in adjacent welds will be covered in this process. Some of the previous repair plates will be completely removed and replaced and some will be repaired by removing a portion of the existing weld and re-welding to an acceptable condition per the code.

In summary, WGS rejected 100% of our previous repairs based on our Mag Particle Inspection. The upcoming repairs will be made per API 653 Code specifications and weld spacing/plate shape will be addressed on a case by case basis as there are several different configurations that will require different methods to address criteria used for accepting or rejecting these locations.

Should you need more information please feel free to contact me at the number or email below.

Very Respectfully,

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