

MP17033 Unity - Data Collection and Transformation Report

Date of Analysis: 04-Aug-2023



Introduction

This report provides a comprehensive analysis of the cost associated with different Equipment in the Unity FPSO Project. The analysis focuses on Piping, Special Piping, Structure, Valves and Bolts scopes within the SBM Scope and YARD Scope. The report includes an overview of all scopes and materials, followed by detailed insights for each material type. Additionally, information on suppliers will be incorporated into the analysis. The report will also present the total cost, cost breakdown for each equipment, cost per kilogram, and cost per supplier.

Overview of Scopes and Materials

This analysis of the Unity Project consists of various scopes, including:

a. SBM Scope

- Piping
- Special Piping
- Valve
- Bolt

b. YARD Scope

- Piping
- Special Piping
- Structure

- Valve

- Bolt

Data Collection and Transformation - Analyze Summary

Overall Summary:

The total weight of all materials analyzed is approximately 3737.910 metric tons.

The Material Take Off (MTO) total cost for all analyzed equipment is \$60268.567.

The total cost of the entire Unity Project FPSO is \$1143870.686.

The total project hours required for material installation is 620673.630 hours.

The overall total pieces of materials are 607407.0.

The overall total meters of materials required for the FPSO is approximately 146658.838.

Scopes Breakdown

The total number of pieces within the SBM scope is 594848.0, while the YARD scope consists of 5470.0 pieces.

The total weight for SBM scope materials is 5517.362 tons, while the YARD scope materials weigh 62.891 tons.

Material Types Breakdown

Piping accounts for the largest weight, with a total of approximately 4256720.270 tons.

Valves weigh 1208149.300 tons, making them the second heaviest material type.

Structures have a total weight of 10416.900 tons.

Special piping materials account for 118560.100 tons.

Surplus and Wastage

The total piping surplus is 746 pieces, which have an associated cost of \$294931.

Approximately 13010.2 tons of structure wastage have been identified.

Purchase Order (PO) Metrics

The overall total PO pieces are 23576.0, and the total PO meters are 14323.0.

Conclusion

In conclusion, the cost analysis of materials in the Unity Project FPSO has been conducted, focusing on piping, special

pipings, structures, valves, bolts, and bends within the SBM Scope and YARD Scope. The analysis provides valuable insights into the total cost, cost breakdown for each equipment, cost per kilogram, and cost per supplier. This information will be crucial for project planning, budgeting, and supplier management, aiding in the successful execution of the Unity Project FPSO.

The cost analysis of materials in the Unity Project FPSO provides valuable insights into the quantity, weight, and costs associated with various equipment. The study highlights the significance of proper supplier management, as well as the importance of optimizing materials to reduce wastage and surplus. The data can be utilized for effective project planning, budgeting, and resource allocation. By ensuring efficient procurement and handling of materials, the Unity Project FPSO can enhance cost-effectiveness and streamline the construction process, leading to a successful and economically viable project delivery.