



**Certificate of Analysis**

**Vessel / Object:** TORM ALLEGRO (9484912)  
**Location:** Port Arthur, TX / GT Gulfway (United States)  
**Job Type:** Load  
**Product Grade:** 93OI Gasoline  
**Client Reference:** Atlantic Trading & Marketing Inc. / HV50197  
**Client Reference:** Rubis Eastern Caribbean SRL / TORM ALLEGRO V01/24

**Job No:** 160-24-04062  
**Date Sampled:** 08/17/24  
**Date Tested:** 08/18/24  
**Version:** 320 / 19 Aug 2024 18:15

| <u>Sample</u>      | <u>Sample ID, Type &amp; Description</u>              |            |            |               |              |                |
|--------------------|---|------------|------------|---------------|--------------|----------------|
| 160-24-04062-088   | 1P-SLOP S Volumetric Composite After Load             |            |            |               |              |                |
| <u>Method</u>      | <u>Test</u>   | <u>Min</u> | <u>Max</u> | <u>Result</u> | <u>Units</u> | <u>Remarks</u> |
| Visual             | Visual Appearance                                     |            |            | C&B           |              |                |
| Visual             | Color   |            |            | Undyed        |              |                |
| ASTM D4052         | Gravity by Digital Density Meter                      |            |            |               |              |                |
|                    | API Gravity @60°F                                     |            |            | 51.4          | °            |                |
|                    | Density @15°C   | 720        | 780        | 773.5         | kg/m³        |                |
| ASTM D86-20a       | Distillation Evaporated                               |            |            |               |              |                |
|                    | IBP   |            |            | 27.7          | °C           |                |
|                    | 10%   |            | 65         | 50.7          | °C           |                |
|                    | 50%   | 77         | 118        | 113.8         | °C           |                |
|                    | 90%   |            | 190        | 134.7         | °C           |                |
|                    | FBP   |            | 225        | 153.1         | °C           |                |
|                    | Residue   |            | 2          | 1.0           | %vol         |                |
| ASTM D4814         | Driveability Index °C                                 |            | 580        | 552           |              |                |
| ASTM D381          | Gum Unwashed and Solvent Washed                       |            |            |               |              |                |
|                    | Solvent Washed Gum Content                            |            | 5          | < 0.5         | mg/100ml     |                |
|                    | Unwashed Gum Content                                  |            |            | < 0.5         | mg/100ml     |                |
| ASTM D3237         | Lead  |            | 50         | < 10          | mg/USgal     |                |
| ASTM D2699         | Research Octane Number by Compression Ratio           | 97         |            | 98.3          |              |                |
| ASTM D2700         | Motor Octane Number by Compression Ratio              | 87         |            | 87.9          |              |                |
| ASTM D4814         | Antiknock Index (R+M)/2                               | 93         |            | 93.1          |              |                |
| ASTM D130          | Copper Strip Corrosion Rating @50°C/122°F for 3 Hours |            | 1          | 1A            |              |                |
| ASTM D3231-18      | Phosphorus  |            | 5          | < 0.0008      | g/US gal     |                |
| ASTM D2622-16      | Total Sulfur Content                                  |            | 0.008      | < 0.0017      | mass%        |                |
| ASTM D4952         | Doctor Test   | Negative   |            | Negative      |              |                |
| ASTM D3227         | Mercaptan Sulfur                                      |            | 0.0015     | 0.0003        | mass%        |                |
| ASTM D3606 Proc. B | Benzene / Toluene in Gasoline by GC                   |            |            |               |              |                |
|                    | Benzene   |            | 5          | 0.19          | %vol         |                |
|                    | Instrument ID   |            |            | PA023         |              |                |
| Visual/Olfactory   | Odor  | Marketable |            | Marketable    |              |                |
| ASTM D525          | Oxidation Stability @100°C                            | 240        |            | 241           | mins         |                |
| ASTM D5191         | DVPE @ 100F° (ASTM CALC AVG)                          | 8.7        | 10         | 9.29          | psi          |                |
| ASTM D4815         | Oxygenates in Gasoline                                |            |            |               |              |                |
|                    | Ethanol   |            | 0.2        | < 0.20        | %wt          |                |
|                    | MTBE  |            | 0.2        | < 0.20        | %wt          |                |
|                    | Total Oxygen Content                                  |            | 0.35       | < 0.01        | %wt          |                |
| ASTM D3831         | Manganese Content of Gasoline                         |            | 0          | < 0.2         | mg/L Mn      |                |



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**Sample** 160-24-04062-088  
**Sample ID, Type & Description** 1P-SLOP S Volumetric Composite After Load

**Method**                      **Test**    **Min**                      **Max**                      **Result**    **Units**    **Remarks**

**Notes:** RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED  
All samples were obtained per ASTM D4057, 40 CFR1090.1335 and are retained in compliance with 40 CFR 1090.1345

[Redacted Signature Area]

Blending Lab Supervisor