

Client: GTR, Inc.  
Job Location: Los Angeles, CA, USA  
Vessel: GTR, INC.  
Our Reference Number: US260-0027747  
Lab Reference Number: 2019-LOSA-000149

Client Reference Number:  
PO# 477683

Description	Method	Test	Result	Units
HFO 04-Feb-2019 2019-LOSA-000149-001	Submitted Fuel Oil (Neat)	Compatibility Rating	5	
	ASTM D4740	Density @ 15°C/59°F	0.9738	g/mL
	ASTM D4052	API Gravity @ 60°F	13.8	°API
	ASTM D4530	Average Micro Method Carbon Residue	13.6	Wt %
	ASTM D4294	Sulfur Content	2.58	Wt %
	ASTM D482	Ash	0.096	Wt %
	ASTM D95	Water Content	0.1	Vol %
	ISO 10307-2	Accelerated Total Sediment by Hot Filtration	0.01	% (m/m)
	ASTM D97	Pour Point	-9	°C
		Pour Point	15.8	°F
	ASTM D93	Procedure Used	B	
		Corrected Flash Point	87.0	°C
		Corrected Flash Point	189	°F
	ASTM D664	Procedure Used	A	
		Acid Number	0.33	mg KOH/g
	ASTM D445	Kinematic Viscosity 50 °C	374.3	cSt
	IP 501	Aluminium	10	mg/kg
		<sup>1</sup> Silicon	9	mg/kg
		Sodium	14	mg/kg
		Vanadium	212	mg/kg
		Calcium	11	mg/kg
		Zinc	4	mg/kg
		Aluminium + Silicon	19	mg/kg
	ASTM D6560	Asphaltene Content	10.7	Wt %
	ISO 8217 F	CCAI	805.3	
	IP 570	<sup>1</sup> Hydrogen Sulfide Content	0.00	mg/kg

HFO 04-Feb-2019 2019-LOSA-000149-002	Submitted Fuel Oil ( with 0.5 ml Soltron)	Compatibility Rating	3	
	ASTM D4740	Density @ 15°C/59°F	0.9738	g/mL
	ASTM D4052	API Gravity @ 60°F	13.8	°API
	ASTM D4530	Average Micro Method Carbon Residue	13.4	Wt %
	ASTM D4294	Sulfur Content	2.57	Wt %
	ASTM D482	Ash	0.053	Wt %
	ASTM D95	Water Content	0.1	Vol %
	ISO 10307-2	Accelerated Total Sediment by Hot Filtration	0.01	% (m/m)
	ASTM D97	Pour Point	-9	°C
		Pour Point	15.8	°F



Description	Method	Test	Result	Units
	ASTM D93	Procedure Used	B	
		Corrected Flash Point	87.0	°C
		Corrected Flash Point	189	°F
	ASTM D664	Procedure Used	A	
		Acid Number	0.29	mg KOH/g
	ASTM D445	Kinematic Viscosity 50 °C	357.7	cSt
	IP 501	Aluminium	10	mg/kg
		<sup>1</sup> Silicon	9	mg/kg
		Sodium	15	mg/kg
		Vanadium	226	mg/kg
		Calcium	12	mg/kg
		Zinc	4	mg/kg
		Aluminium + Silicon	19	mg/kg
	ASTM D6560	Asphaltene Content	10.4	Wt %
	ISO 8217 F	CCAI	805.8	
	IP 570	<sup>1</sup> Hydrogen Sulfide Content	0.00	mg/kg

<sup>1</sup> Out of Scope of the Method

Signed: \_\_\_\_\_

Intertek

Date: \_\_\_\_\_

