



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**20066022237**

Component  
**Starboard Diesel Engine**

Fluid  
**SHELL ROTELLA T6 5W40 (--- GAL)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA031377	---	---
Sample Date		Client Info		04 Jun 2024	---	---
Machine Age	hrs	Client Info		935	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>80	8	---	---
Chromium	ppm	ASTM D5185(m)	>6	0	---	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>95	7	---	---
Copper	ppm	ASTM D5185(m)	>85	4	---	---
Tin	ppm	ASTM D5185(m)	>9	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

### CONTAMINATION

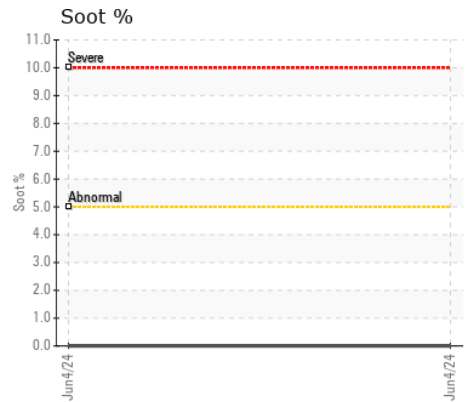
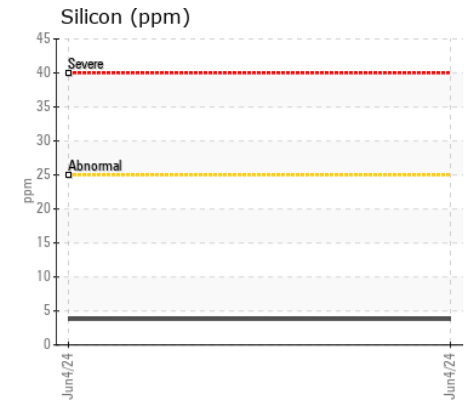
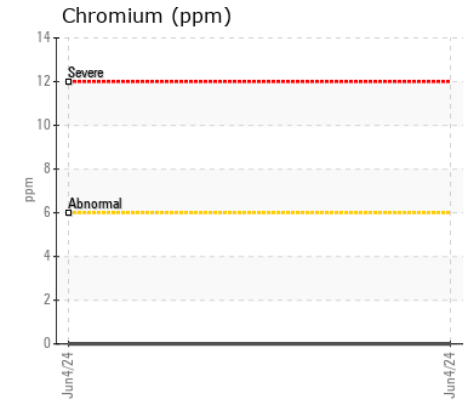
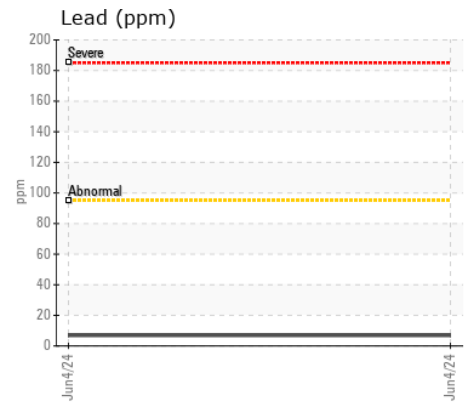
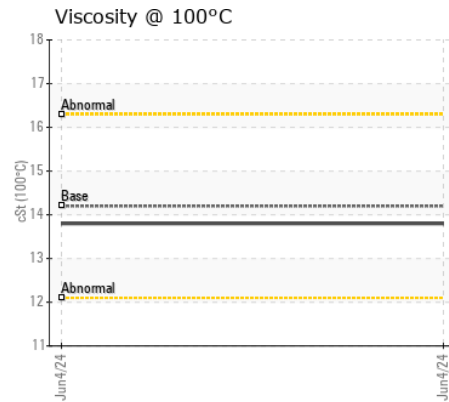
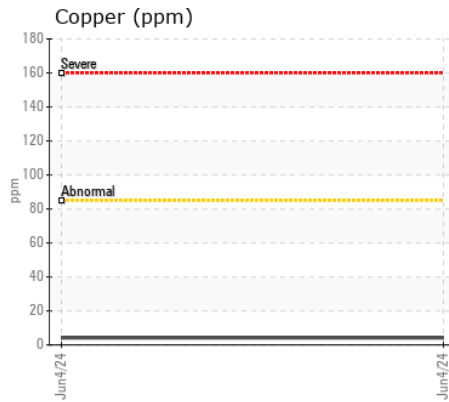
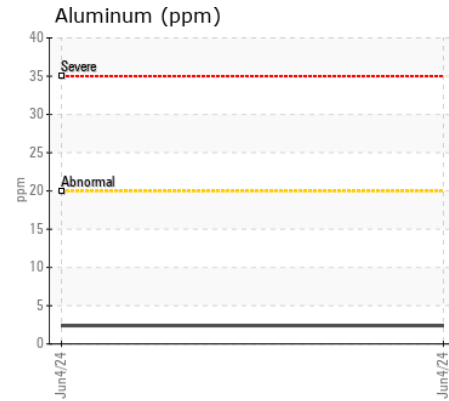
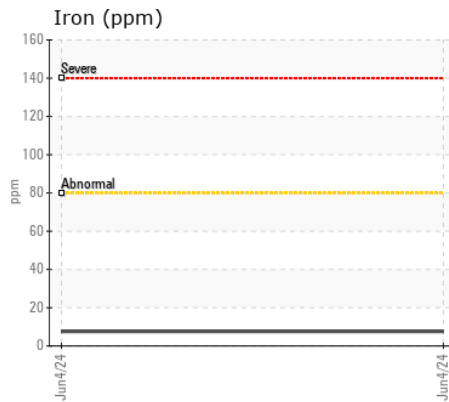
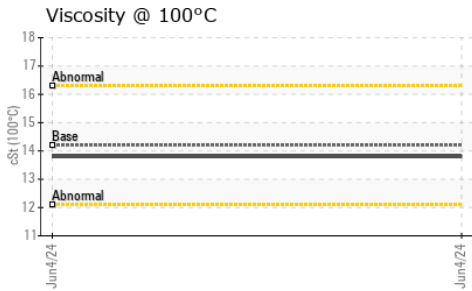
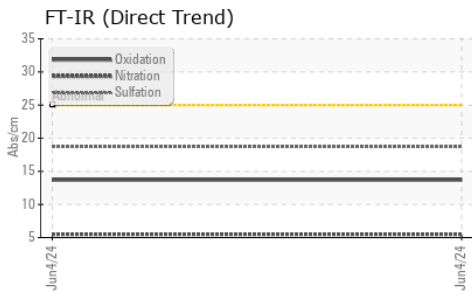
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	5.5	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.7	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

### FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		38	---	---
Boron	ppm	ASTM D5185(m)		57	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		35	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		567	---	---
Calcium	ppm	ASTM D5185(m)		1567	---	---
Phosphorus	ppm	ASTM D5185(m)		988	---	---
Zinc	ppm	ASTM D5185(m)		1136	---	---
Sulfur	ppm	ASTM D5185(m)		2734	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.2	13.8	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VPA031377  
**Lab Number** : 02640608  
**Unique Number** : 5789770  
**Test Package** : MOB 1  
**Received** : 07 Jun 2024  
**Tested** : 07 Jun 2024  
**Diagnosed** : 07 Jun 2024 - Kevin Marson

**GBCS - GEORGIAN BAY SERVICES**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.