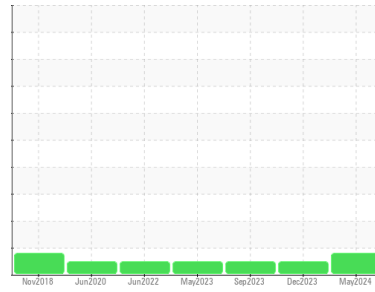




# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Machine Id  
**INTERNATIONAL 15001**  
 Component  
**Front Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- LTR)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### Fluid Condition

Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The condition of the oil is acceptable for the time in service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0683831</b>	WC0776231	WC0818407
Sample Date	Client Info		<b>16 May 2024</b>	11 Dec 2023	18 Sep 2023
Machine Age	kms	Client Info	<b>0</b>	367507	355039
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	<b>10</b>	16	24
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	8	11
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	<1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	250	<b>95</b>	31	13
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>22</b>	82	82
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>554</b>	37	180
Calcium	ppm	ASTM D5185(m)	3000	<b>1401</b>	2222	2008
Phosphorus	ppm	ASTM D5185(m)	1150	<b>695</b>	979	1050
Zinc	ppm	ASTM D5185(m)	1350	<b>810</b>	1138	1159
Sulfur	ppm	ASTM D5185(m)	4250	<b>2442</b>	3086	2964
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

### CONTAMINANTS

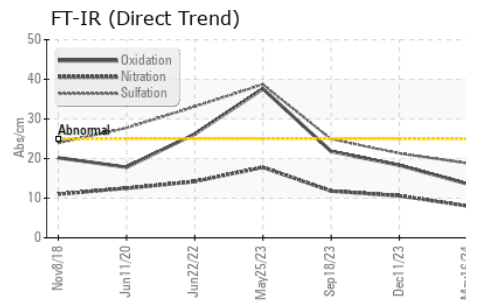
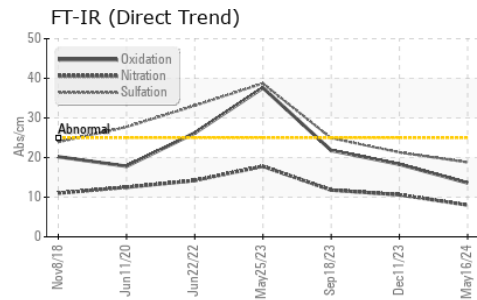
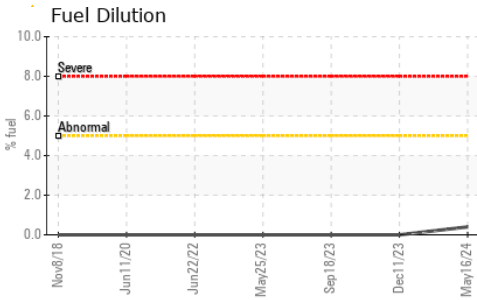
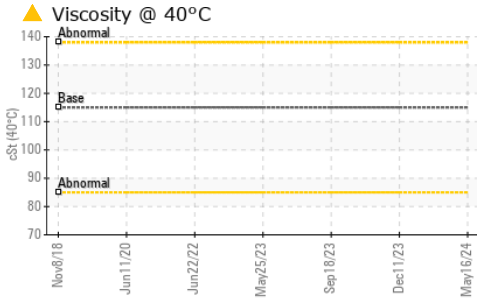
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	5	6
Sodium	ppm	ASTM D5185(m)	>158	<b>2</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	4	10
Fuel	%	ASTM D7593*	>5	<b>0.4</b>	<1.0	<1.0

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.3	0.8
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.0</b>	10.6	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.8</b>	21.3	24.9



# OIL ANALYSIS REPORT

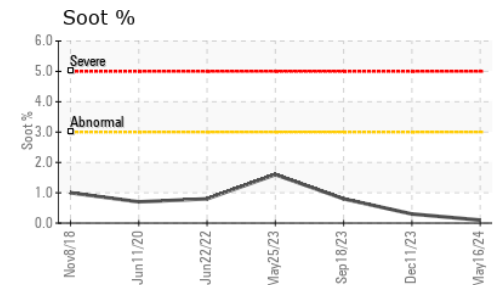
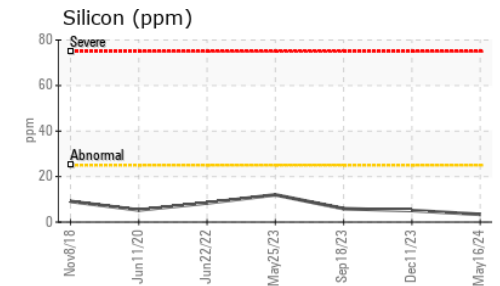
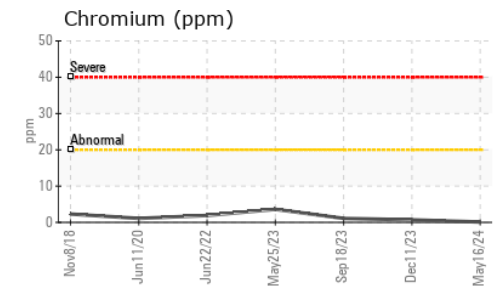
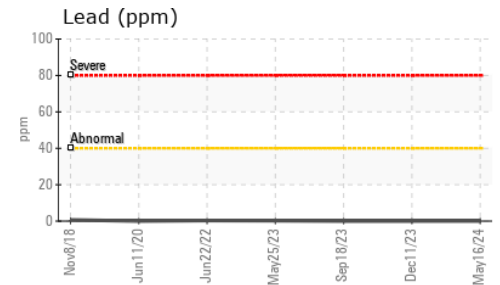
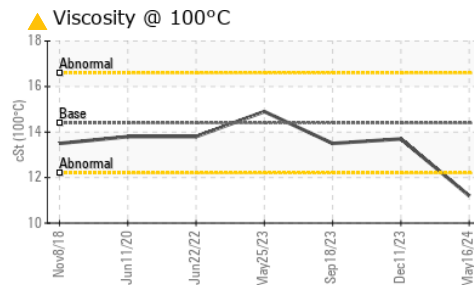
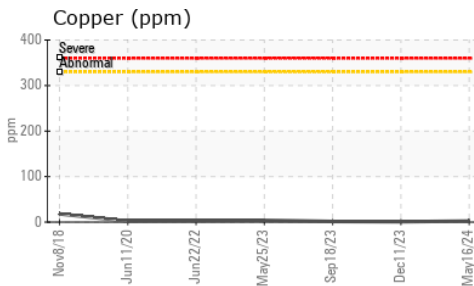
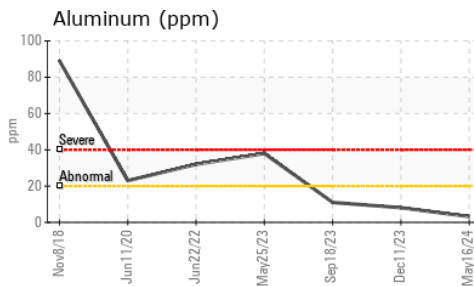
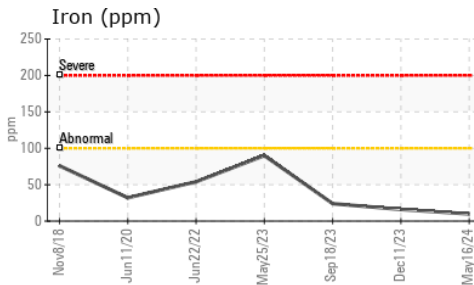


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>13.6</b>	18.3	21.8

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>▲ 75.9</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>▲ 11.2</b>	13.7	13.5
Viscosity Index (VI)	Scale	ASTM D2270*	126	<b>138</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0683831 **Received** : 20 Jun 2024  
**Lab Number** : **02643116** **Tested** : 21 Jun 2024  
**Unique Number** : 5800655 **Diagnosed** : 21 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, VI )

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.

**BRITANNIA FLEET SERVICES**  
 1831 SHAWSON DRIVE (SHOP)  
 MISSISSAUGA, ON  
 CA L4W 1T9  
 Contact: Tania Henriques  
 tania.henriques@britanniafleet.ca  
 T: (905)670-4545  
 F: (905)670-9036