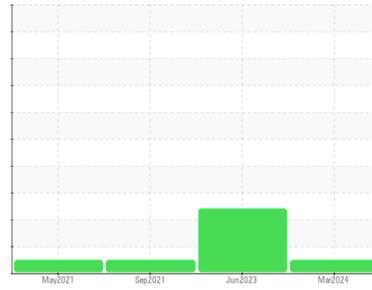




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**TICO 824-8355**  
 Component  
**Diesel Engine**  
 Fluid  
 **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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>WC0889846</b>	WC0818394	WC0593119
Sample Date	Client Info		<b>26 Mar 2024</b>	14 Jun 2023	28 Sep 2021
Machine Age	hrs	Client Info	<b>688</b>	5113	1233
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 2	<1.0
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>59</b>	10	20
Chromium	ppm	ASTM D5185(m)	>20	<b>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>5</b>	1	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	1
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	<1	38
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
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>11</b>	26	26
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185(m)	100	<b>73</b>	3	79
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185(m)	450	<b>446</b>	10	68
Calcium	ppm	ASTM D5185(m)	3000	<b>1711</b>	1024	2110
Phosphorus	ppm	ASTM D5185(m)	1150	<b>967</b>	▲ 507	951
Zinc	ppm	ASTM D5185(m)	1350	<b>1170</b>	▲ 439	1109
Sulfur	ppm	ASTM D5185(m)	4250	<b>2553</b>	▲ 1563	2864
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

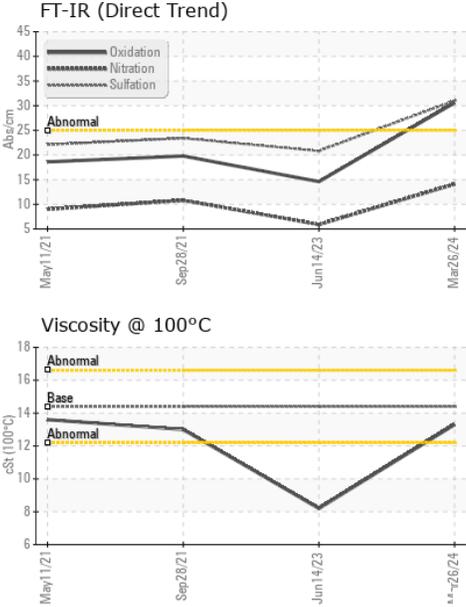
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	4	13
Sodium	ppm	ASTM D5185(m)	>158	<b>3</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.1</b>	5.9	10.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>31.0</b>	20.8	23.4



# OIL ANALYSIS REPORT

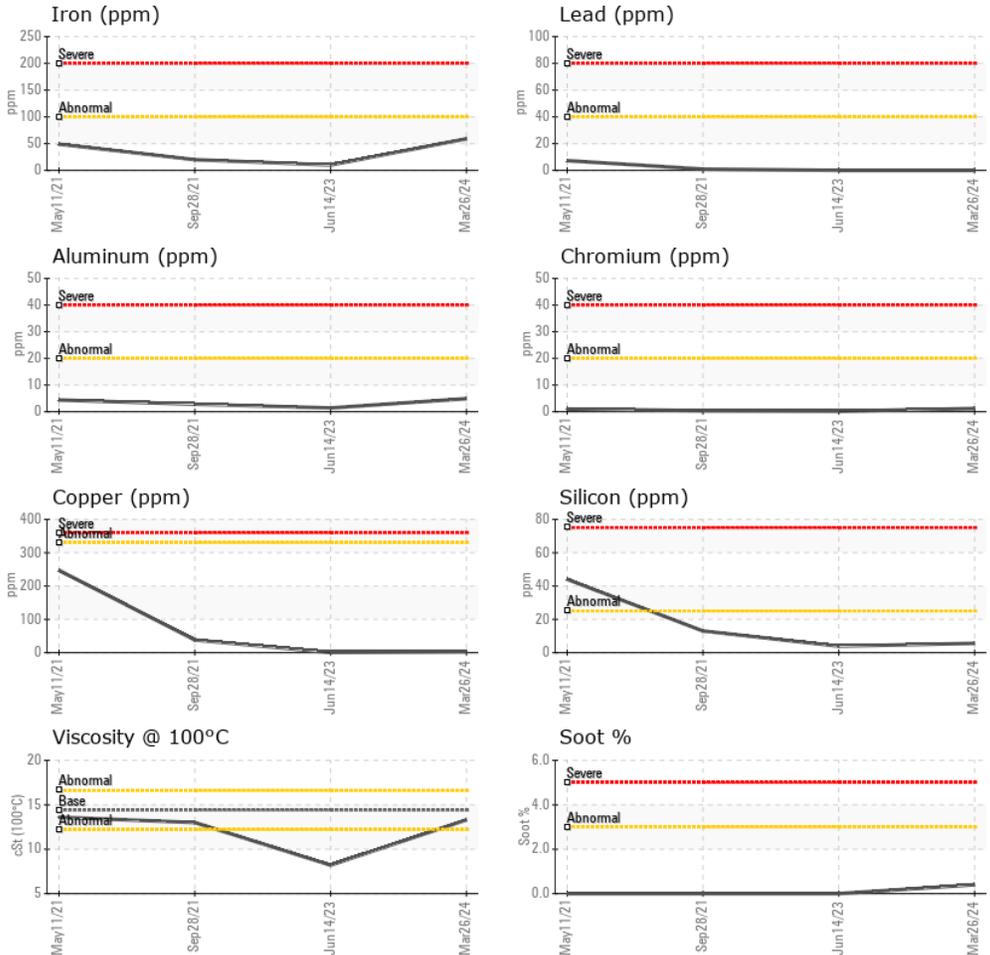


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>30.6</b>	14.6	19.8

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.3</b>	▲ 8.2	13.0

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0889846 **Received** : 12 Apr 2024  
**Lab Number** : **02628430** **Tested** : 12 Apr 2024  
**Unique Number** : 5761562 **Diagnosed** : 12 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**BRITANNIA FLEET 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.