



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
EPIROC ST18 SCP203

Component
Diesel Engine

Fluid
MOBIL 1 TURBO DIESEL TRUCK 15W40 (--- 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		WC0886139	WC0848076	---
Sample Date		Client Info		15 Jan 2024	11 Aug 2023	---
Machine Age	hrs	Client Info		311	10010	---
Oil Age	hrs	Client Info		311	250	---
Filter Age	hrs	Client Info		311	250	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	SEVERE	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	15	61	---
Chromium	ppm	ASTM D5185(m)	>20	<1	1	---
Nickel	ppm	ASTM D5185(m)	>4	2	2	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	3	11	---
Lead	ppm	ASTM D5185(m)	>40	2	88	---
Copper	ppm	ASTM D5185(m)	>330	5	49	---
Tin	ppm	ASTM D5185(m)	>15	2	5	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

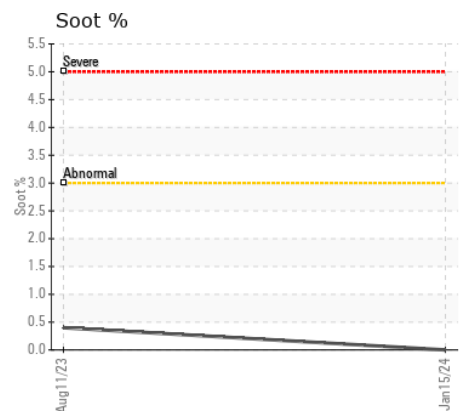
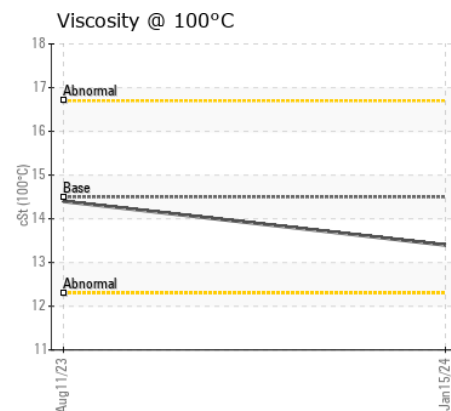
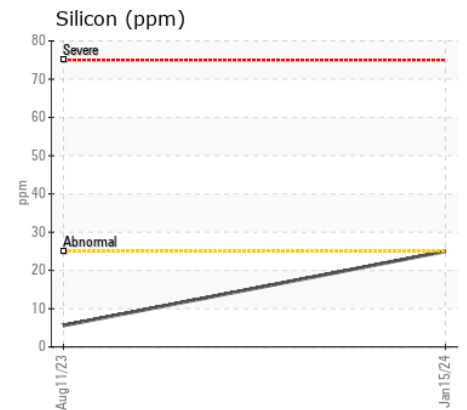
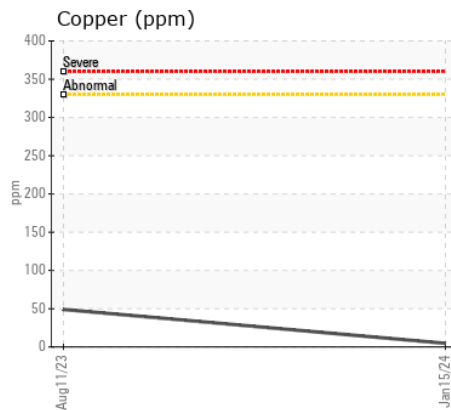
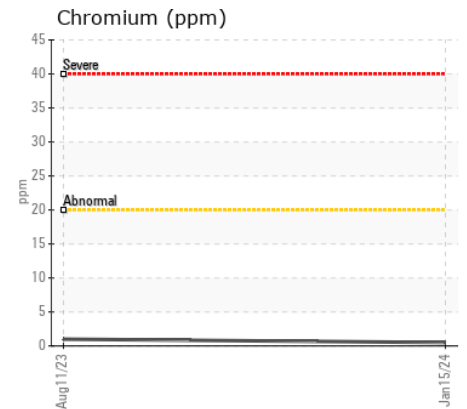
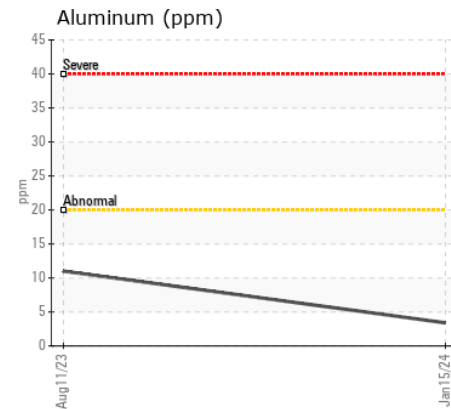
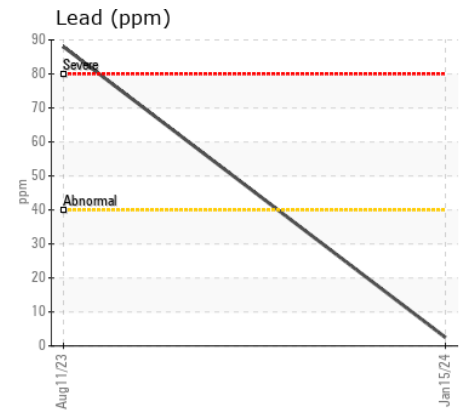
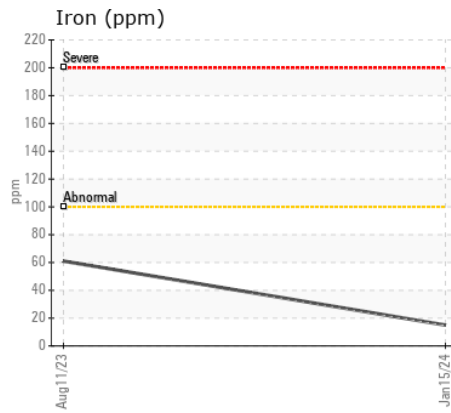
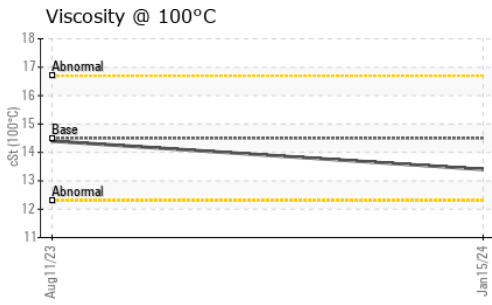
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	25	6	---
Potassium	ppm	ASTM D5185(m)	>20	7	6	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	0.0	---
Soot %	%	ASTM D7844*	>3	0	0.4	---
Nitration	Abs/cm	ASTM D7624*	>20	6.7	10.7	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	28.5	---
Emulsified Water	scalar	Visual*	>0.2	NEG	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)		5	17	---
Boron	ppm	ASTM D5185(m)		105	53	---
Barium	ppm	ASTM D5185(m)		13	0	---
Molybdenum	ppm	ASTM D5185(m)		9	21	---
Manganese	ppm	ASTM D5185(m)		2	<1	---
Magnesium	ppm	ASTM D5185(m)		123	157	---
Calcium	ppm	ASTM D5185(m)		2269	2133	---
Phosphorus	ppm	ASTM D5185(m)	1100	924	1042	---
Zinc	ppm	ASTM D5185(m)		1105	1201	---
Sulfur	ppm	ASTM D5185(m)		2991	2827	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	24.4	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	13.4	14.4	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0886139 **Received** : 23 Jan 2024
Lab Number : 02610545 **Diagnosed** : 23 Jan 2024
Unique Number : 5711631 **Diagnostician** : Wes Davis
Test Package : MOB 1

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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.