MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LAKESHORE E4
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (21 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

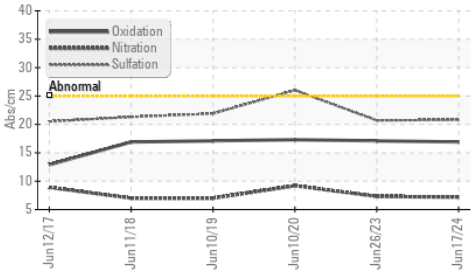
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

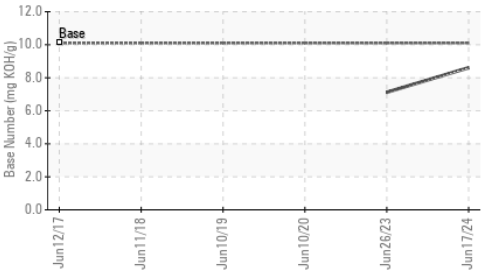
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0933483	WC0760630	AP108388
Sample Date		Client Info		17 Jun 2024	26 Jun 2023	10 Jun 2020
Machine Age	kms	Client Info		1308	1212	989
Oil Age	kms	Client Info		97	104	71
Filter Age	kms	Client Info		97	104	71
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>100	12	8	20
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	2
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	4	3	3
Lead	ppm	ASTM D5185(m)	>40	0	<1	26
Copper	ppm	ASTM D5185(m)	>330	2	3	404
Tin	ppm	ASTM D5185(m)	>15	0	0	2
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	2	3	24
Potassium	ppm	ASTM D5185(m)	>20	12	11	▲ 162
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	▲ 0.016
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.2	7.3	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	20.7	26.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		4	5	● 192
Boron	ppm	ASTM D5185(m)	35	153	157	72
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	4
Manganese	ppm	ASTM D5185(m)	0	<1	<1	2
Magnesium	ppm	ASTM D5185(m)	10	10	13	14
Calcium	ppm	ASTM D5185(m)	2340	2086	2060	1825
Phosphorus	ppm	ASTM D5185(m)	1110	917	1015	1053
Zinc	ppm	ASTM D5185(m)	1210	1096	1129	1077
Sulfur	ppm	ASTM D5185(m)	3890	2845	2899	2889
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	17.1	17.3
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	8.61	7.12	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	14.3	14.1	14.3

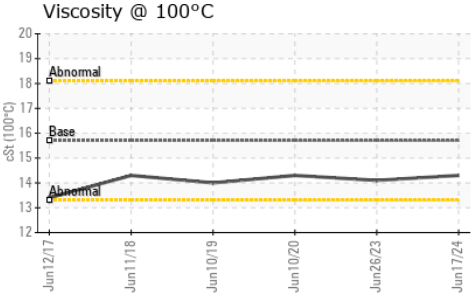
FT-IR (Direct Trend)



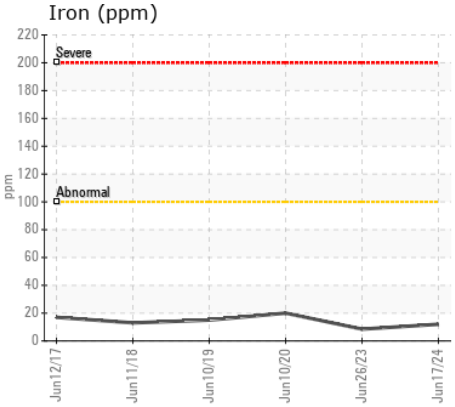
Base Number



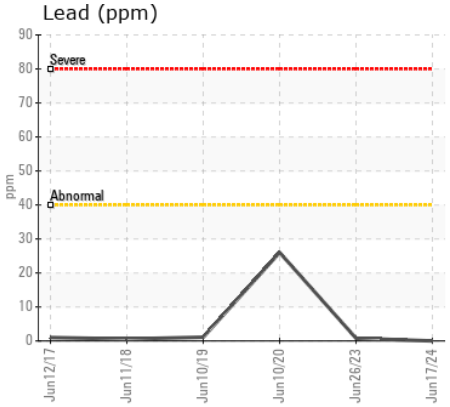
Viscosity @ 100°C



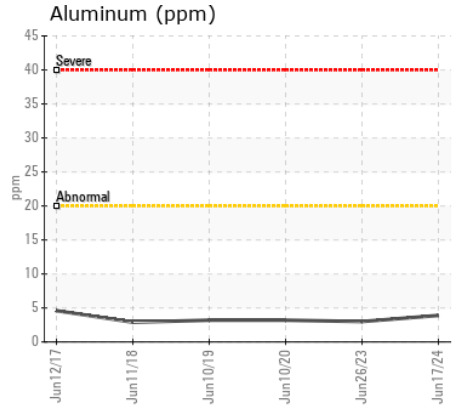
Iron (ppm)



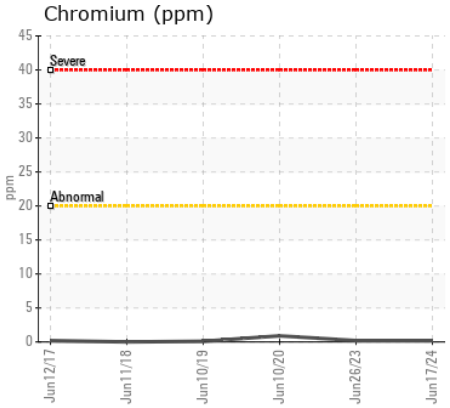
Lead (ppm)



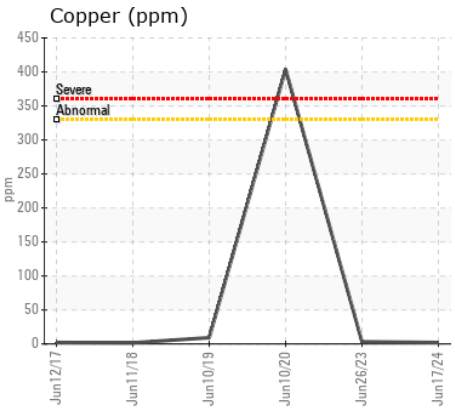
Aluminum (ppm)



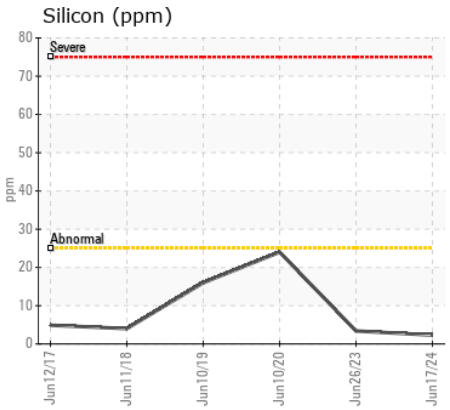
Chromium (ppm)



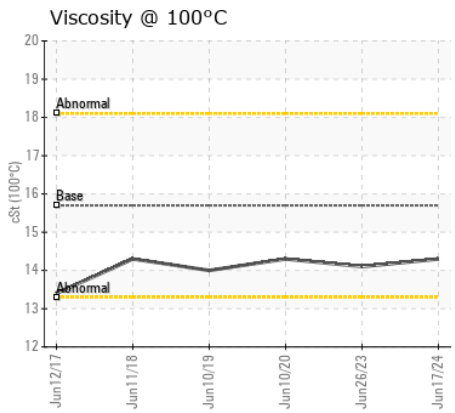
Copper (ppm)



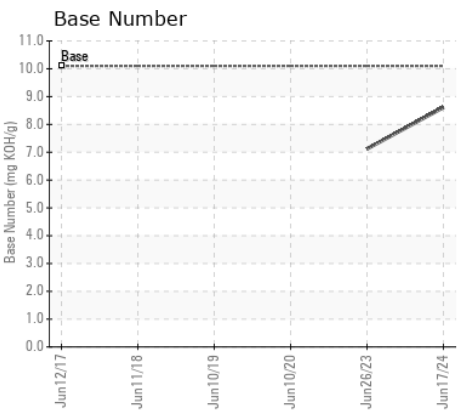
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0933483
Lab Number : 02643073
Unique Number : 5800612
Test Package : MOB 2

Received : 20 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

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.

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