MAR II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DG # (S/N HCM134C1)
Component
1 Auxiliary Engine
Fluid
SHELL 15W40 (60 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

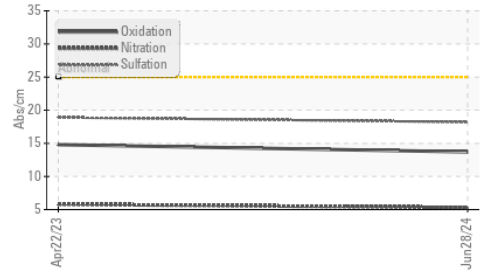
There is no indication of any contamination in the oil.

FLUID CONDITION

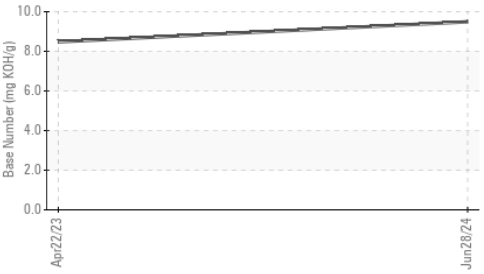
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0955557**	WC0722085	---
Sample Date		Client Info		**28 Jun 2024**	22 Apr 2023	---
Machine Age	hrs	Client Info		**8856**	8530	---
Oil Age	hrs	Client Info		**0**	0	---
Filter Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Not Changd**	Changed	---
Filter Changed		Client Info		**Not Changd**	Changed	---
Sample Status				**NORMAL**	NORMAL	---
PQ		ASTM D8184*		**0**	0	---
Iron	ppm	ASTM D5185(m)	>35	**2**	3	---
Chromium	ppm	ASTM D5185(m)	>4	**0**	0	---
Nickel	ppm	ASTM D5185(m)	>2	**0**	0	---
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	---
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	2	---
Lead	ppm	ASTM D5185(m)	>7	**1**	1	---
Copper	ppm	ASTM D5185(m)	>65	**9**	5	---
Tin	ppm	ASTM D5185(m)	>4	**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Silicon	ppm	ASTM D5185(m)	>20	**2**	3	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	---
Fuel		WC Method	>4.0	**<1.0**	<1.0	---
Water		WC Method	>0.1	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---
Soot %	%	ASTM D7844*		**0**	0	---
Nitration	Abs/cm	ASTM D7624*	>20	**5.3**	5.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.2**	18.9	---
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	---
Sodium	ppm	ASTM D5185(m)	>150	**14**	9	---
Boron	ppm	ASTM D5185(m)		**21**	107	---
Barium	ppm	ASTM D5185(m)		**0**	0	---
Molybdenum	ppm	ASTM D5185(m)		**59**	59	---
Manganese	ppm	ASTM D5185(m)		**0**	<1	---
Magnesium	ppm	ASTM D5185(m)		**856**	467	---
Calcium	ppm	ASTM D5185(m)		**1212**	1700	---
Phosphorus	ppm	ASTM D5185(m)		**980**	1091	---
Zinc	ppm	ASTM D5185(m)		**1167**	1153	---
Sulfur	ppm	ASTM D5185(m)		**2770**	3170	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.7**	14.8	---
Base Number (BN)	mg KOH/g	ASTM D2896*		**9.49**	8.48	---
Visc @ 100°C	cSt	ASTM D7279(m)		**13.4**	12.3	---

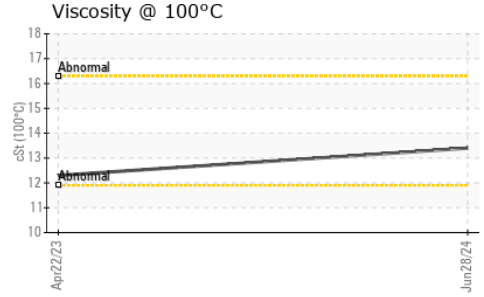
FT-IR (Direct Trend)



Base Number

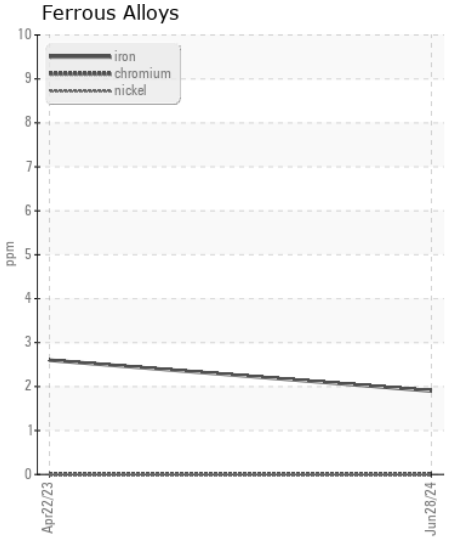


Viscosity @ 100°C

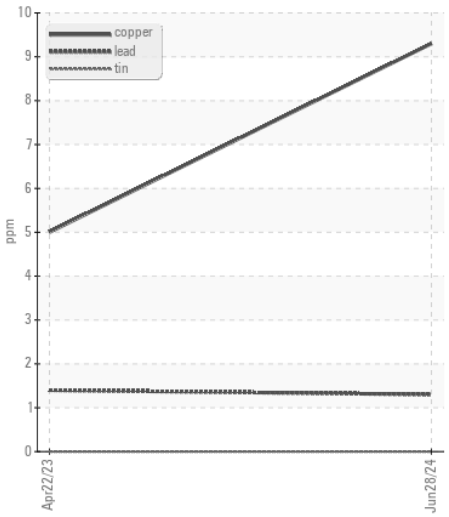


PQ

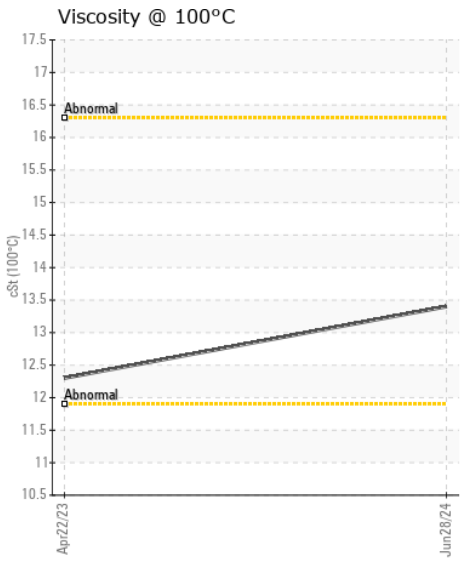
Ferrous Alloys



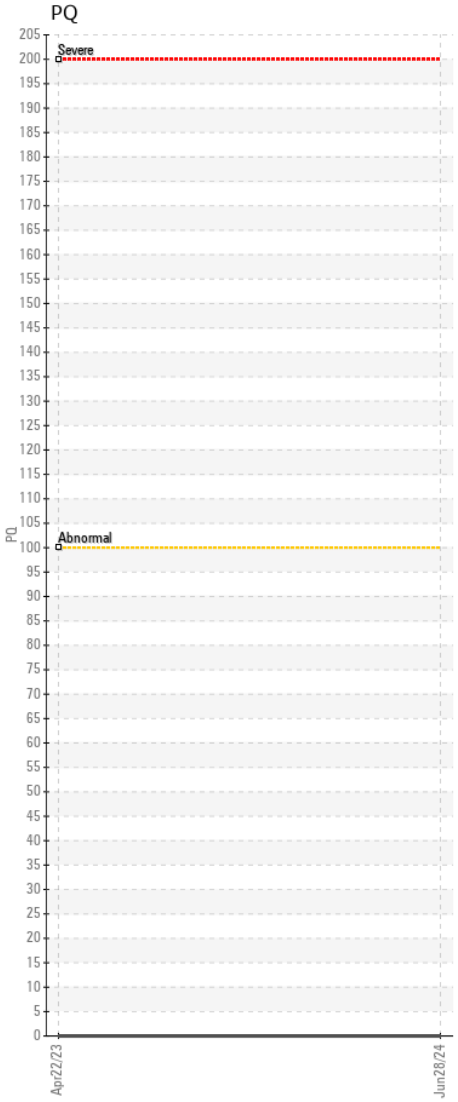
Non-ferrous Metals



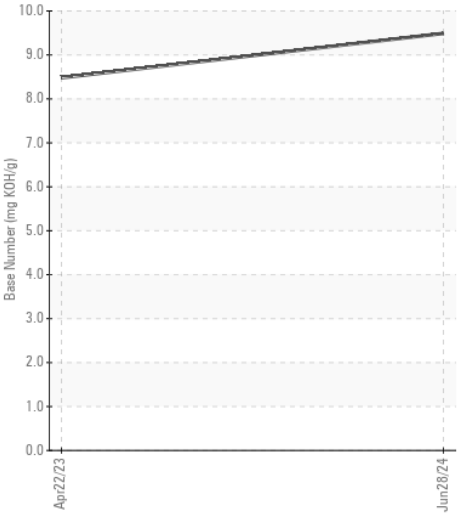
Viscosity @ 100°C



PQ



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0955557
Lab Number : 02645377
Unique Number : 5802916
Test Package : MAR 2 (Additional Tests: PQ)

Received : 04 Jul 2024
Tested : 04 Jul 2024
Diagnosed : 04 Jul 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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