MOB I

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 1812
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (30 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

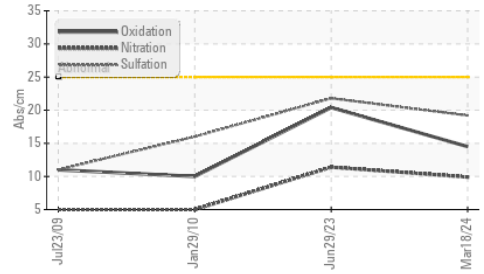
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

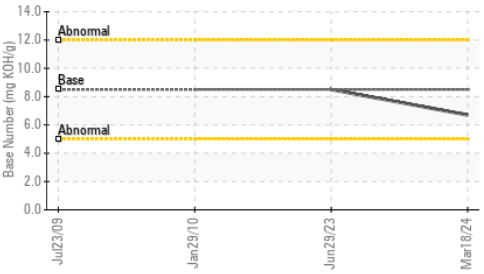
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0905784	WC0821393	WCM1195192
Sample Date		Client Info		18 Mar 2024	29 Jun 2023	29 Jan 2010
Machine Age	mls	Client Info		19964	5975	179445
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	26	84	25
Chromium	ppm	ASTM D5185m	>20	<1	3	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	37	33	2
Lead	ppm	ASTM D5185m	>40	0	0	3
Copper	ppm	ASTM D5185m	>330	0	57	4
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	▲ 34	4
Potassium	ppm	ASTM D5185m	>20	125	179	3
Fuel		WC Method	>2.0	<1.0	1.4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	11.4	5.
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	21.8	16.
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>158	8	13	2
Boron	ppm	ASTM D5185m	250	36	25	97
Barium	ppm	ASTM D5185m	10	0	5	0
Molybdenum	ppm	ASTM D5185m	100	82	53	38
Manganese	ppm	ASTM D5185m		<1	8	<1
Magnesium	ppm	ASTM D5185m	450	105	873	578
Calcium	ppm	ASTM D5185m	3000	1940	1282	1386
Phosphorus	ppm	ASTM D5185m	1150	948	779	1070
Zinc	ppm	ASTM D5185m	1350	1125	961	1239
Sulfur	ppm	ASTM D5185m	4250	3827	2894	3582
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	20.4	10.
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.7	8.5	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	● 11.4	12.9

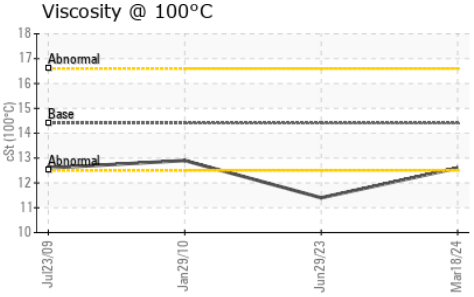
FT-IR (Direct Trend)



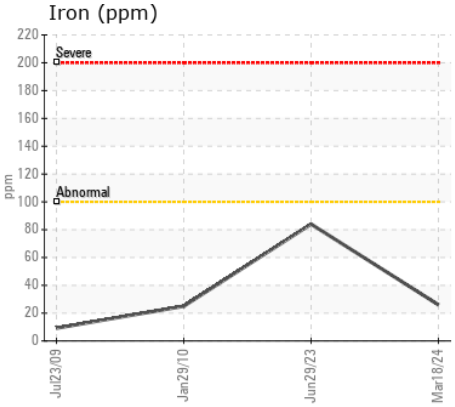
Base Number



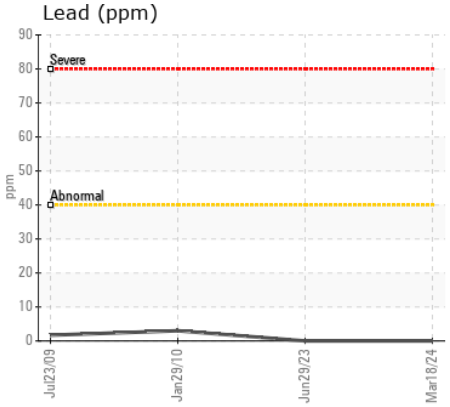
Viscosity @ 100°C



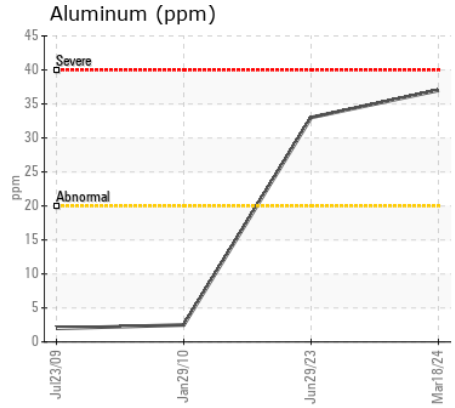
Iron (ppm)



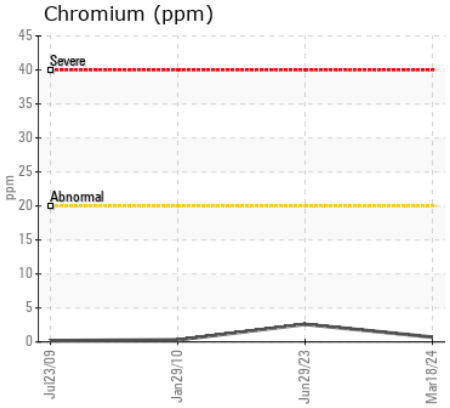
Lead (ppm)



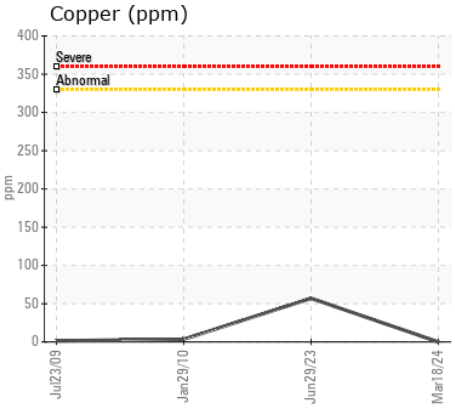
Aluminum (ppm)



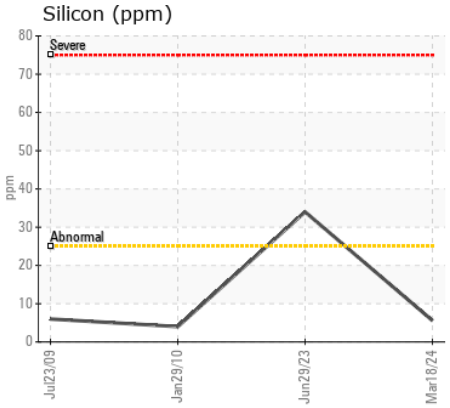
Chromium (ppm)



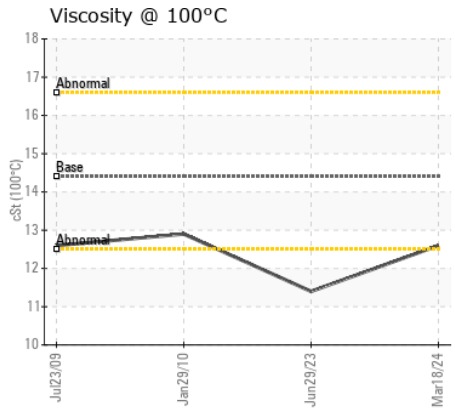
Copper (ppm)



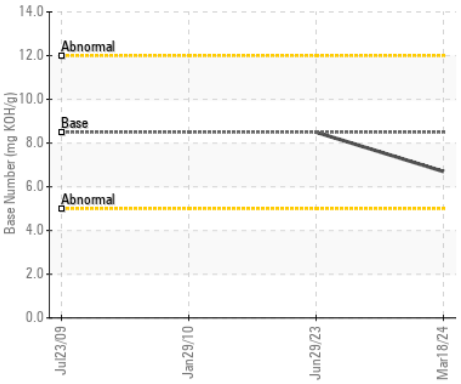
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0905784
Lab Number : 06195168
Unique Number : 11057291
Test Package : MOB 1 (Additional Tests: TBN)

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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