MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
3720095
Component
Diesel Engine
Fluid
SHELL ROTELLA T 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

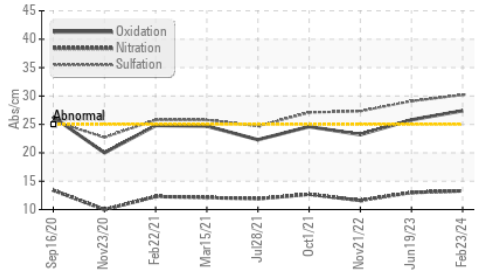
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

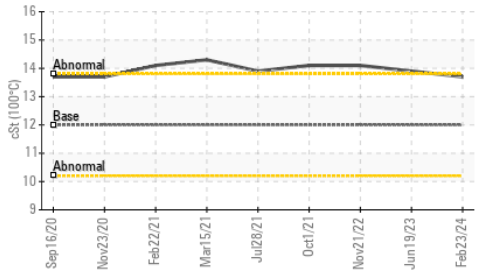
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**PC0084005**	PC0074756	PC0066769
Sample Date		Client Info		**23 Feb 2024**	19 Jun 2023	21 Nov 2022
Machine Age	mls	Client Info		**453796**	399902	342108
Oil Age	mls	Client Info		**54000**	58000	56000
Filter Age	mls	Client Info		**54000**	58000	56000
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>200	**45**	45	55
Chromium	ppm	ASTM D5185(m)	>6	**2**	2	3
Nickel	ppm	ASTM D5185(m)	>3	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>50	**17**	14	19
Lead	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>50	**8**	7	11
Tin	ppm	ASTM D5185(m)	>6	**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Silicon	ppm	ASTM D5185(m)	>50	**6**	6	8
Potassium	ppm	ASTM D5185(m)	>20	**20**	13	24
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG
Soot %	%	ASTM D7844*	>3	**0.9**	0.8	0.7
Nitration	Abs/cm	ASTM D7624*	>20	**13.3**	13.0	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**30.2**	29.1	27.3
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	NORML
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**5**	5	6
Boron	ppm	ASTM D5185(m)		**16**	18	9
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**55**	60	60
Manganese	ppm	ASTM D5185(m)		**<1**	<1	1
Magnesium	ppm	ASTM D5185(m)		**395**	645	937
Calcium	ppm	ASTM D5185(m)		**1957**	1712	1354
Phosphorus	ppm	ASTM D5185(m)		**1027**	1132	1164
Zinc	ppm	ASTM D5185(m)		**1314**	1325	1317
Sulfur	ppm	ASTM D5185(m)		**2487**	2373	2267
Oxidation	Abs/.1mm	ASTM D7414*	>25	**27.4**	25.8	23.2
Visc @ 40°C	cSt	ASTM D7279(m)	81	**99.5**	103	106
Visc @ 100°C	cSt	ASTM D7279(m)	12.	**13.7**	13.9	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	141	**138**	136	134

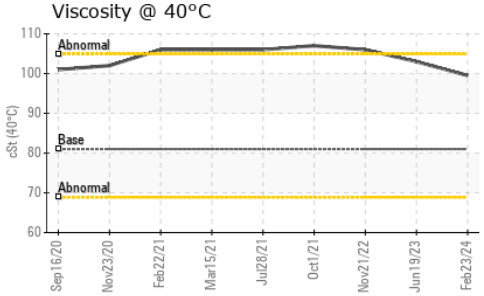
FT-IR (Direct Trend)



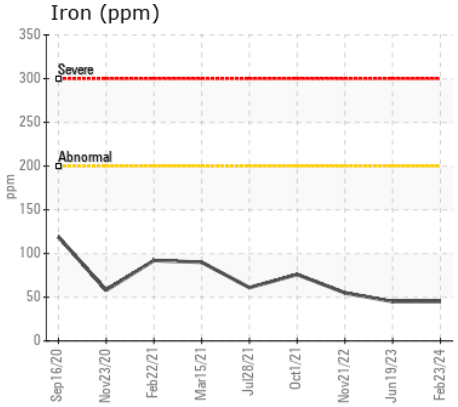
Viscosity @ 100°C



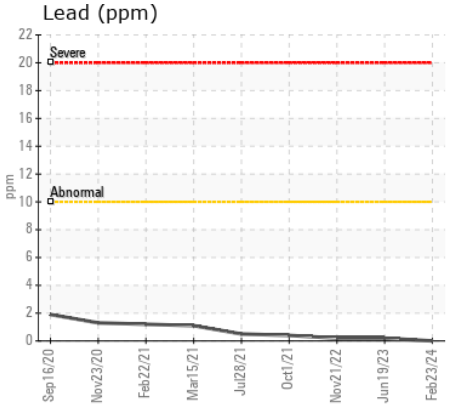
Viscosity @ 40°C



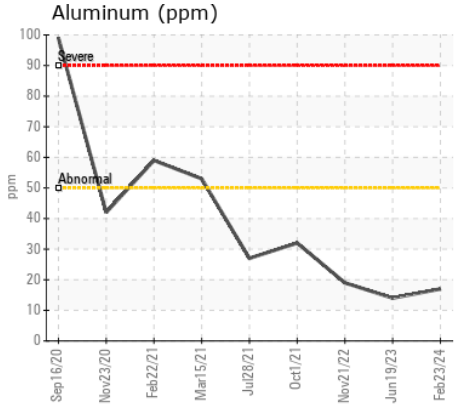
Iron (ppm)



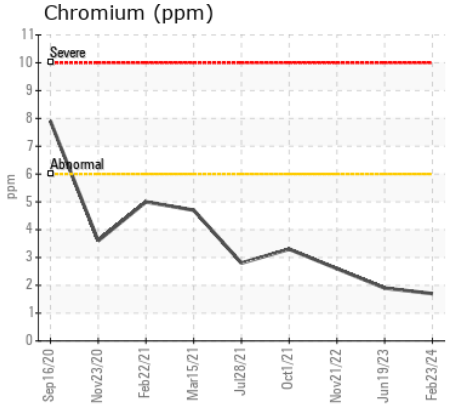
Lead (ppm)



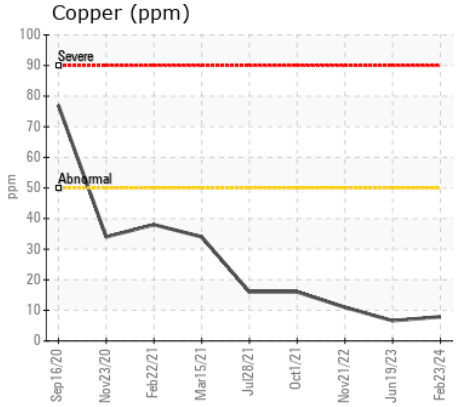
Aluminum (ppm)



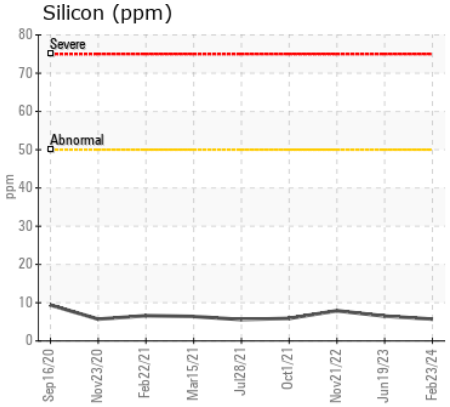
Chromium (ppm)



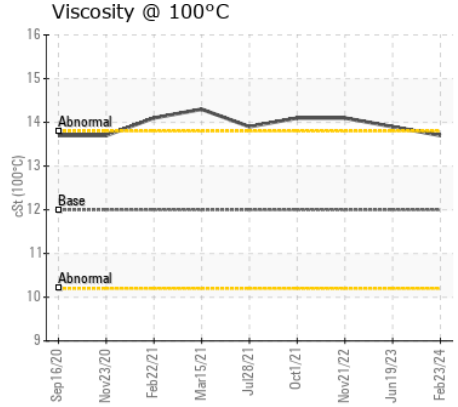
Copper (ppm)



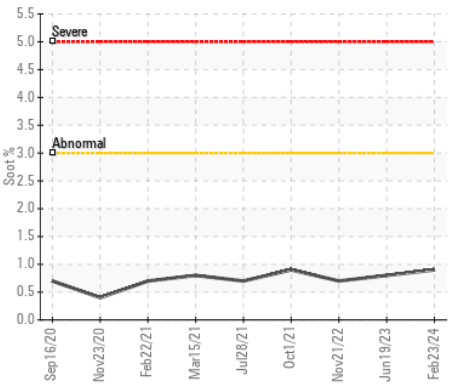
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0084005 **Received** : 20 Jun 2024
Lab Number : 02643082 **Tested** : 20 Jun 2024
Unique Number : 5800621 **Diagnosed** : 20 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

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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