MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
NO UNIT 02645780
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 10W30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please specify the component make and model with your next sample.

WEAR

Nickel ppm levels are abnormal. Exhaust valve wear is indicated. We have assumed that this component is not breaking in (age of component not reported).

CONTAMINATION

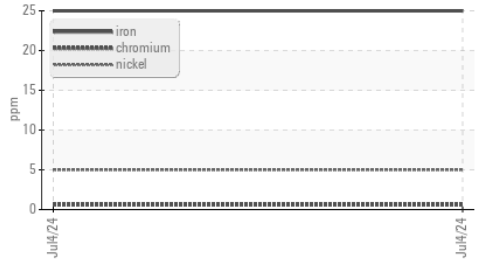
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

FLUID CONDITION

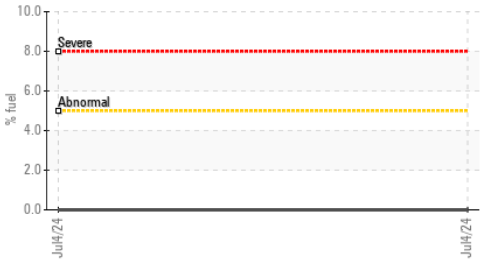
Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC	---	---
Sample Date		Client Info		04 Jul 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185(m)	>100	25	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>4	▲ 5	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>40	<1	---	---
Copper	ppm	ASTM D5185(m)	>330	2	---	---
Tin	ppm	ASTM D5185(m)	>15	2	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	22	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Fuel	%	ASTM D7593*	>5	0.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.3	---	---
Nitration	Abs/cm	ASTM D7624*	>20	10.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.0	---	---
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	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		16	---	---
Boron	ppm	ASTM D5185(m)		9	---	---
Barium	ppm	ASTM D5185(m)		<1	---	---
Molybdenum	ppm	ASTM D5185(m)		52	---	---
Manganese	ppm	ASTM D5185(m)		1	---	---
Magnesium	ppm	ASTM D5185(m)		881	---	---
Calcium	ppm	ASTM D5185(m)		1133	---	---
Phosphorus	ppm	ASTM D5185(m)		917	---	---
Zinc	ppm	ASTM D5185(m)		1113	---	---
Sulfur	ppm	ASTM D5185(m)		2444	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		73.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		11.1	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		141	---	---

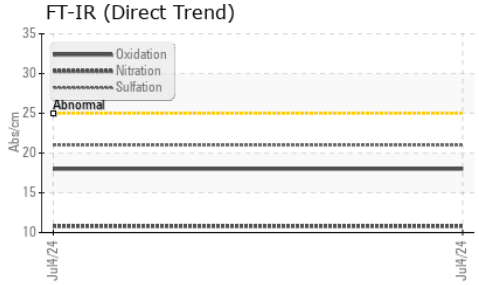
Ferrous Alloys



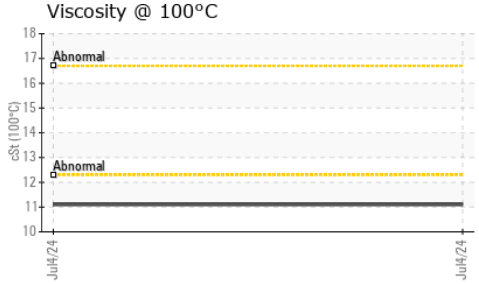
Fuel Dilution



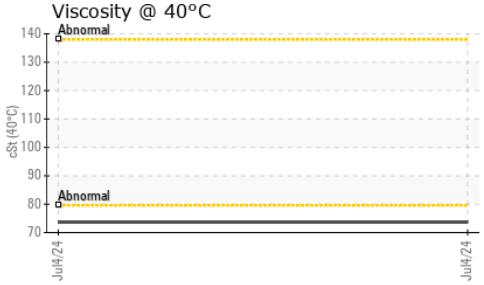
FT-IR (Direct Trend)



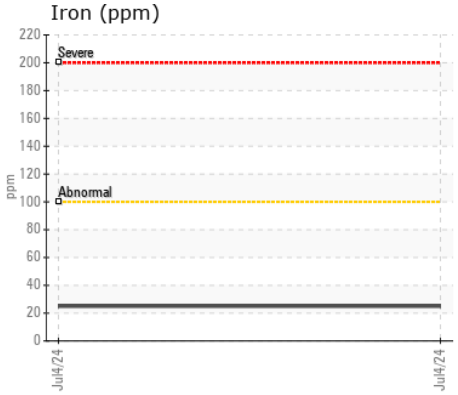
Viscosity @ 100°C



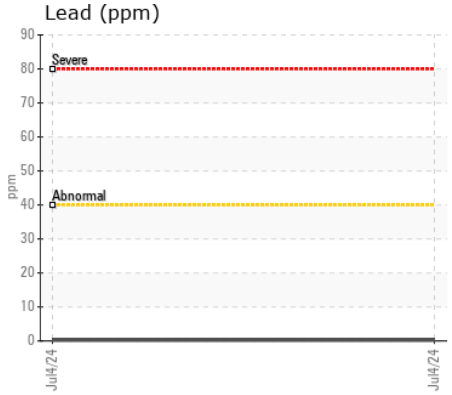
Viscosity @ 40°C



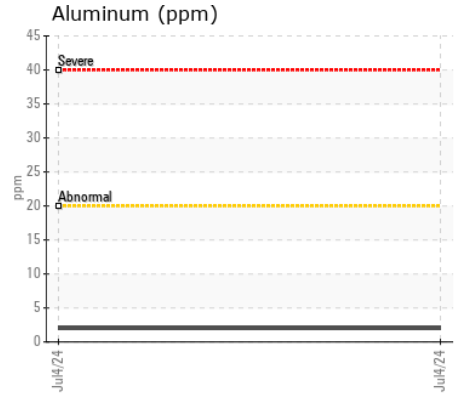
Iron (ppm)



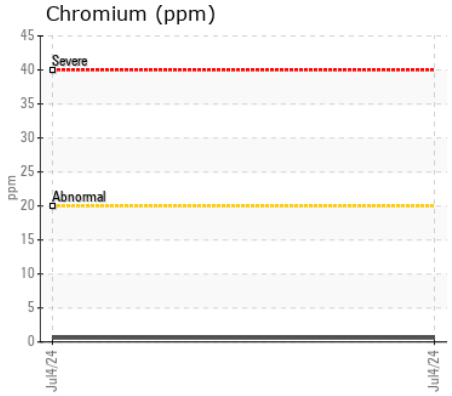
Lead (ppm)



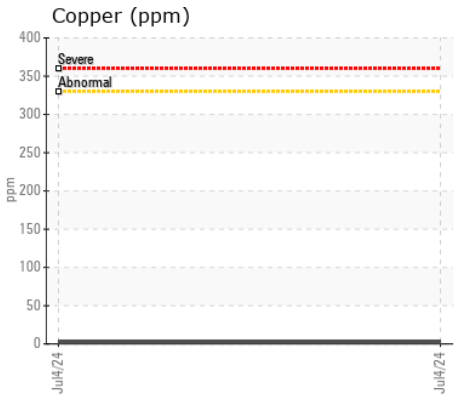
Aluminum (ppm)



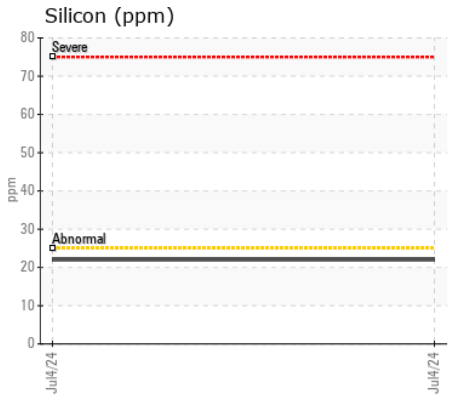
Chromium (ppm)



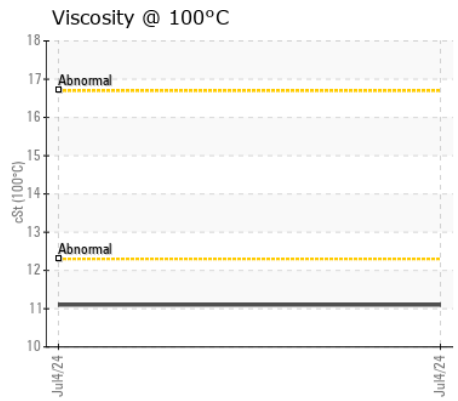
Copper (ppm)



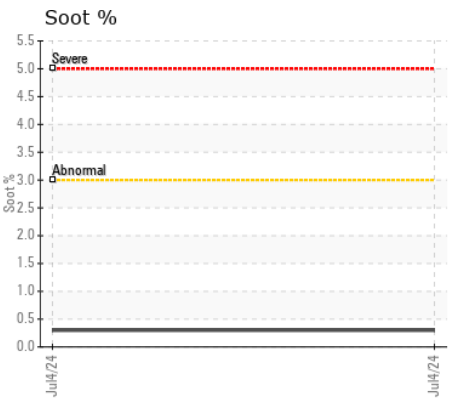
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02645780
Unique Number : 5803319
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual)
Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Kevin Marson

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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