MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
163
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 10W30. Please confirm. Please specify the component make and model with your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

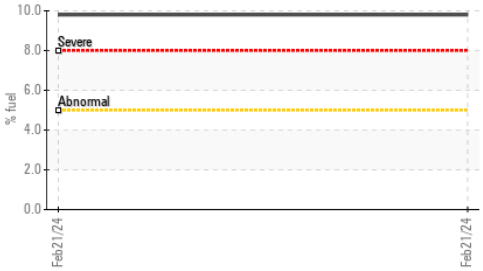
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a high amount of fuel present in the oil. There is a moderate concentration of dirt present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

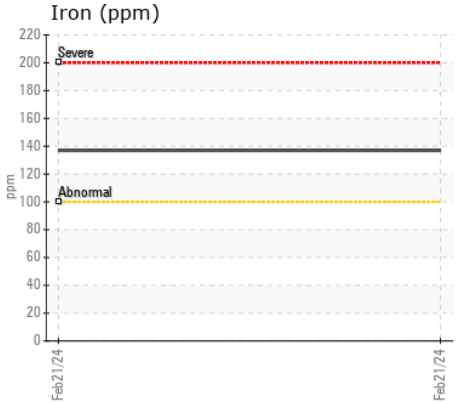
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083934	---	---
Sample Date		Client Info		21 Feb 2024	---	---
Machine Age	kms	Client Info		15841	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185(m)	>100	137	---	---
Chromium	ppm	ASTM D5185(m)	>20	3	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	14	---	---
Lead	ppm	ASTM D5185(m)	>40	17	---	---
Copper	ppm	ASTM D5185(m)	>330	382	---	---
Tin	ppm	ASTM D5185(m)	>15	9	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	▲ 89	---	---
Potassium	ppm	ASTM D5185(m)	>20	33	---	---
Fuel	%	ASTM D7593*	>5	▲ 9.8	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	1.7	---	---
Nitration	Abs/cm	ASTM D7624*	>20	16.0	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	29.4	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
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)		8	---	---
Boron	ppm	ASTM D5185(m)	250	32	---	---
Barium	ppm	ASTM D5185(m)	10	2	---	---
Molybdenum	ppm	ASTM D5185(m)	100	4	---	---
Manganese	ppm	ASTM D5185(m)		1	---	---
Magnesium	ppm	ASTM D5185(m)	450	645	---	---
Calcium	ppm	ASTM D5185(m)	3000	1130	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	862	---	---
Zinc	ppm	ASTM D5185(m)	1350	995	---	---
Sulfur	ppm	ASTM D5185(m)	4250	2264	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	27.7	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	73	87.3	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	12.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	138	139	---	---

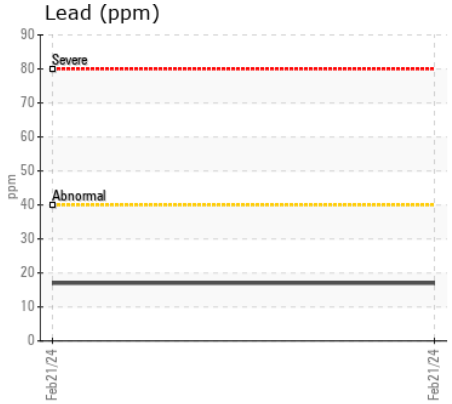
Fuel Dilution



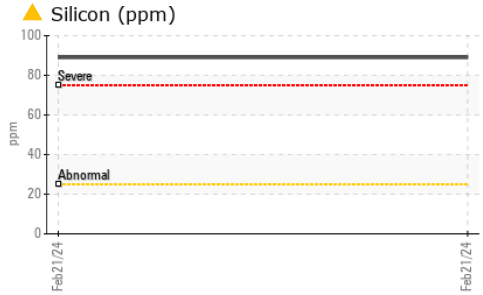
Iron (ppm)



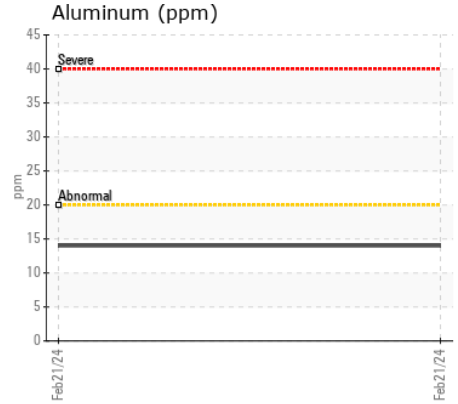
Lead (ppm)



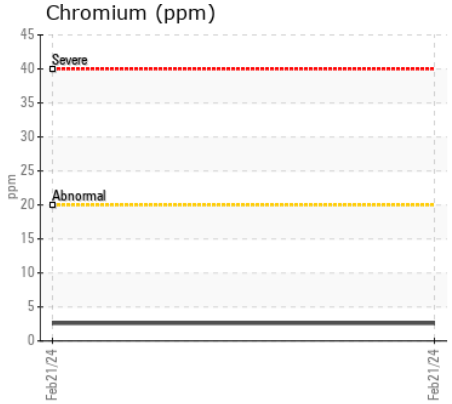
Silicon (ppm)



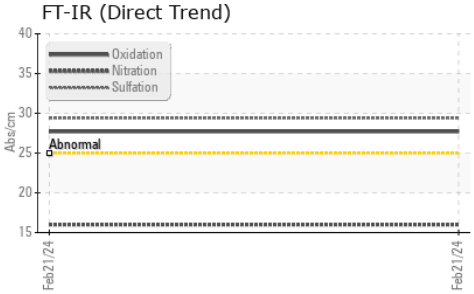
Aluminum (ppm)



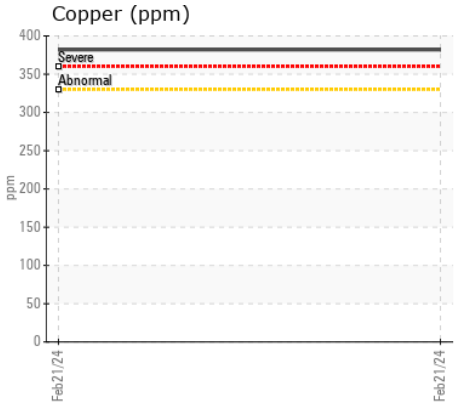
Chromium (ppm)



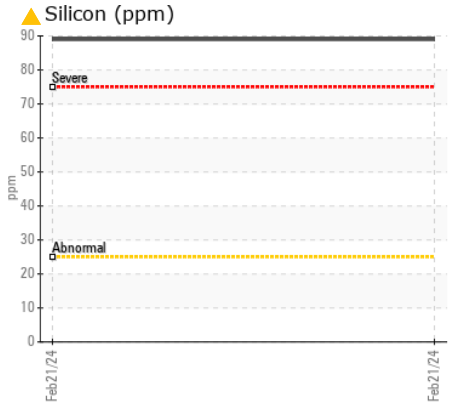
FT-IR (Direct Trend)



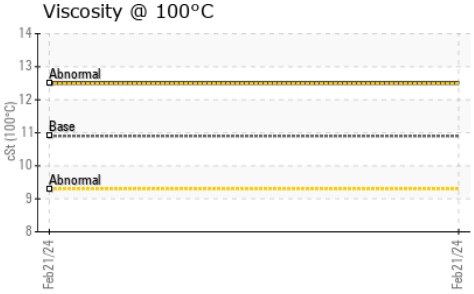
Copper (ppm)



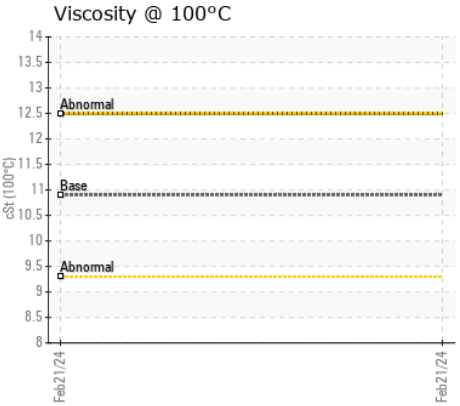
Silicon (ppm)



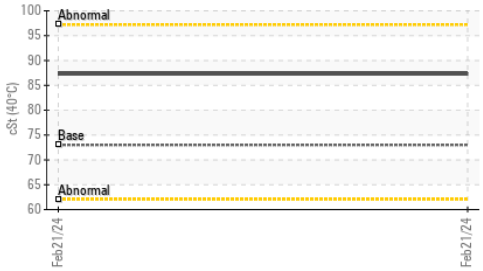
Viscosity @ 100°C



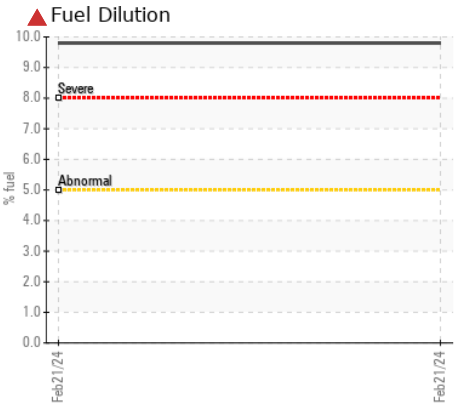
Viscosity @ 100°C



Viscosity @ 40°C



Fuel Dilution



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: PC0083934	**Received**	: 05 Apr 2024
Lab Number	: 02626844	**Tested**	: 08 Apr 2024
Unique Number	: 5759976	**Diagnosed**	: 08 Apr 2024 - Kevin Marson
Test Package	: MOB 1 (Additional Tests: FUELDILUTION, KV40, PercentFuel, 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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