MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
931022
Component
Natural Gas Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- 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.

WEAR

Aluminum ppm levels are abnormal. Piston wear is indicated.

CONTAMINATION

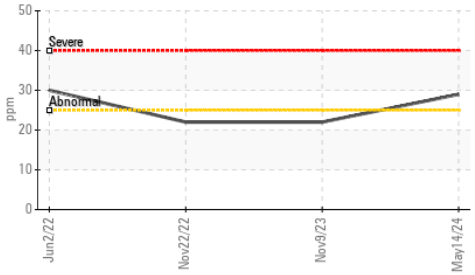
There is no indication of any contamination in the oil.

FLUID CONDITION

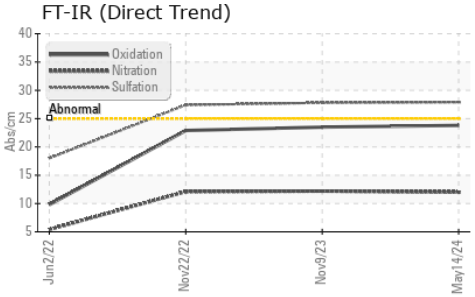
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112692	GFL0100350	GFL0060164
Sample Date		Client Info		14 May 2024	09 Nov 2023	22 Nov 2022
Machine Age	hrs	Client Info		5884	4691	31142
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>50	34	29	28
Chromium	ppm	ASTM D5185(m)	>5	2	2	2
Nickel	ppm	ASTM D5185(m)	>4	1	2	1
Titanium	ppm	ASTM D5185(m)	>5	0	0	2
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	▲ 29	22	22
Lead	ppm	ASTM D5185(m)	>40	9	13	3
Copper	ppm	ASTM D5185(m)	>150	2	3	3
Tin	ppm	ASTM D5185(m)	>4	<1	1	2
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	7	8	11
Potassium	ppm	ASTM D5185(m)	>20	8	8	26
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		---	---	0.0
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.0	12.2	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.9	27.8	27.4
Silt	scalar	Visual*	NONE	VLITE	---	---
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*	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)	>158	11	10	11
Boron	ppm	ASTM D5185(m)	250	7	8	7
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	62	58	59
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)	450	635	634	634
Calcium	ppm	ASTM D5185(m)	3000	1780	1728	1743
Phosphorus	ppm	ASTM D5185(m)	1150	791	788	868
Zinc	ppm	ASTM D5185(m)	1350	985	996	987
Sulfur	ppm	ASTM D5185(m)	4250	2022	1973	2067
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.8	23.5	22.9
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.3	14.5	14.4

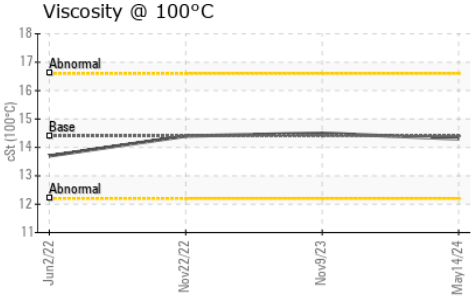
Aluminum (ppm)



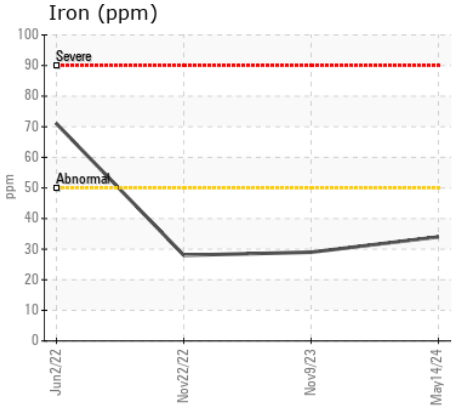
FT-IR (Direct Trend)



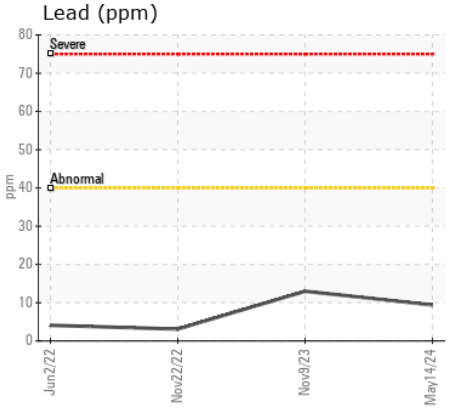
Viscosity @ 100°C



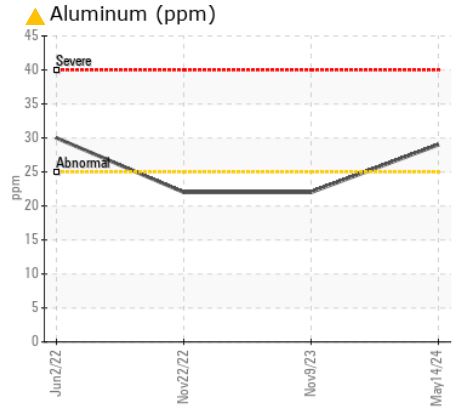
Iron (ppm)



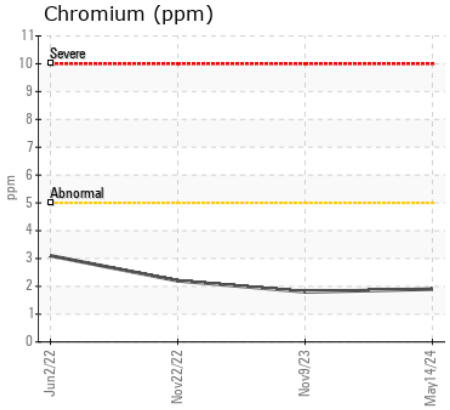
Lead (ppm)



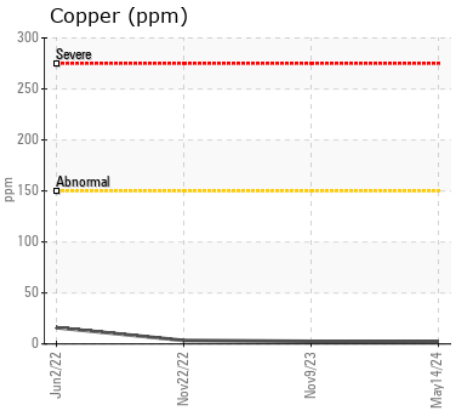
Aluminum (ppm)



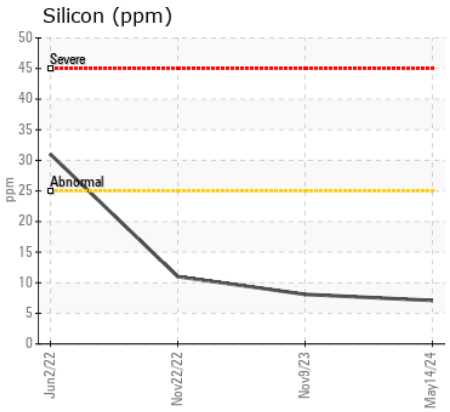
Chromium (ppm)



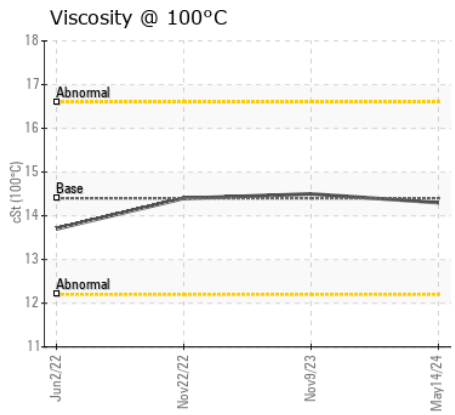
Copper (ppm)



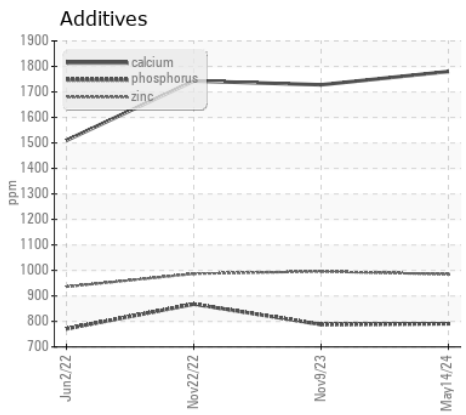
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: GFL0112692	**Received**	: 27 May 2024
Lab Number	: 02637610	**Tested**	: 27 May 2024
Unique Number	: 5786772	**Diagnosed**	: 27 May 2024 - Kevin Marson
Test Package	: MOB 1 (Additional Tests: 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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