MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4526
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Nickel ppm levels are severe. Exhaust valve wear is indicated.

CONTAMINATION

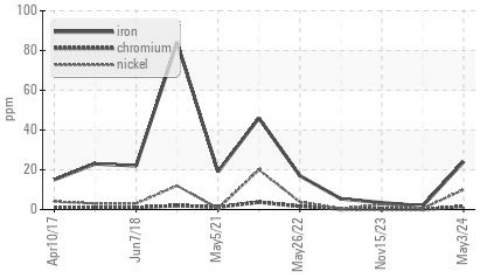
There is no indication of any contamination in the oil.

FLUID CONDITION

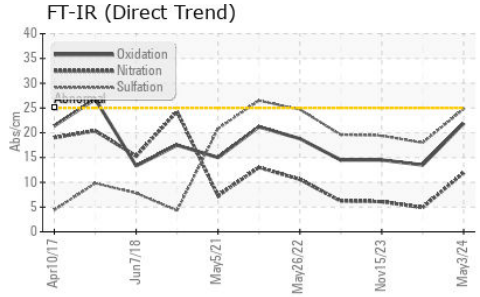
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**GFL0118958**	GFL0101717	GFL0097628
Sample Date		Client Info		**03 May 2024**	27 Nov 2023	15 Nov 2023
Machine Age	hrs	Client Info		**17454**	17027	18531
Oil Age	hrs	Client Info		**0**	0	0
Filter Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	Changed
Filter Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	**24**	2	4
Chromium	ppm	ASTM D5185(m)	>20	**2**	0	<1
Nickel	ppm	ASTM D5185(m)	>4	▲ **10**	<1	3
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	**3**	<1	2
Lead	ppm	ASTM D5185(m)	>40	**4**	0	0
Copper	ppm	ASTM D5185(m)	>330	**2**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**<1**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>25	**8**	6	7
Potassium	ppm	ASTM D5185(m)	>20	**2**	0	0
Fuel		WC Method	>2.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	ASTM D7844*	>3	**1.1**	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**11.9**	4.9	6.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	**24.8**	18.0	19.4
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**2**	1	2
Boron	ppm	ASTM D5185(m)	2	**2**	3	10
Barium	ppm	ASTM D5185(m)	0	**0**	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	**65**	57	61
Manganese	ppm	ASTM D5185(m)	0	**<1**	0	0
Magnesium	ppm	ASTM D5185(m)	950	**1054**	928	947
Calcium	ppm	ASTM D5185(m)	1050	**1167**	996	1065
Phosphorus	ppm	ASTM D5185(m)	995	**1084**	962	1003
Zinc	ppm	ASTM D5185(m)	1180	**1263**	1135	1161
Sulfur	ppm	ASTM D5185(m)	2600	**2584**	2567	2611
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.9**	13.5	14.5
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	**78.4**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	**11.7**	11.3	11.2
Viscosity Index (VI)	Scale	ASTM D2270*	144	**142**	---	---

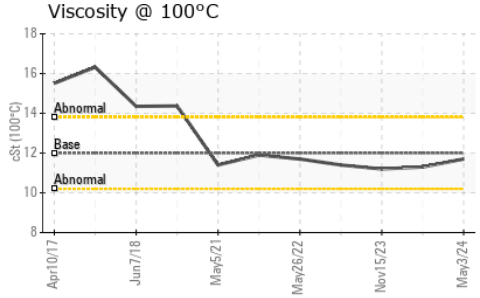
Ferrous Alloys



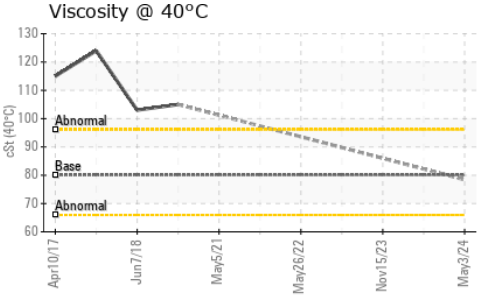
FT-IR (Direct Trend)



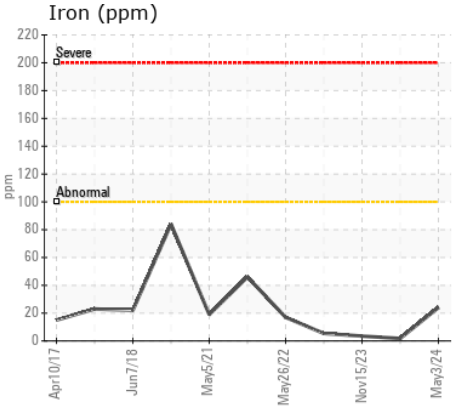
Viscosity @ 100°C



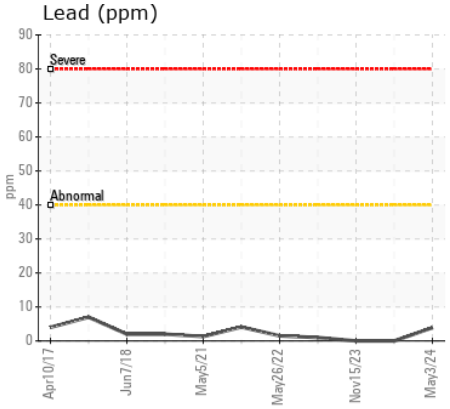
Viscosity @ 40°C



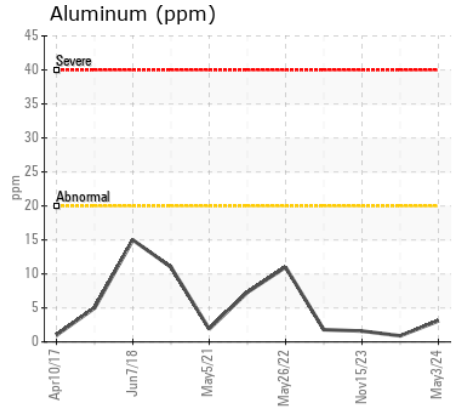
Iron (ppm)



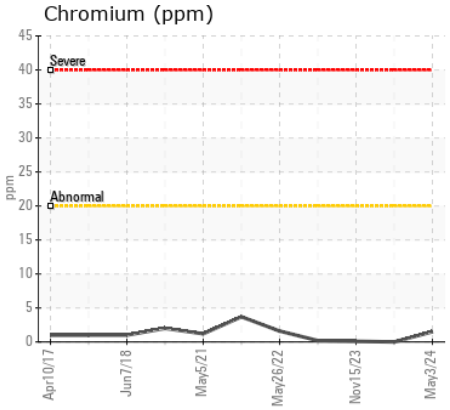
Lead (ppm)



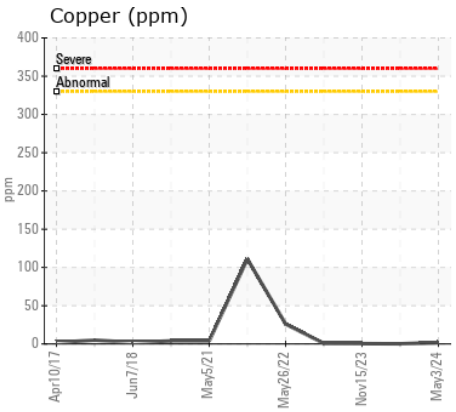
Aluminum (ppm)



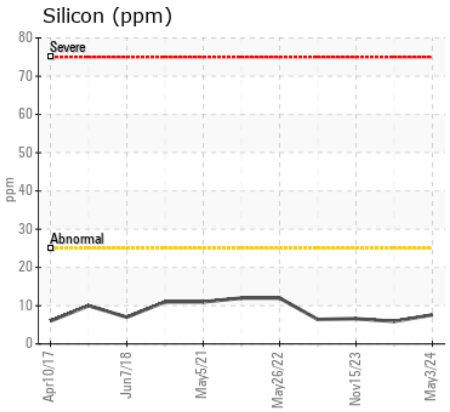
Chromium (ppm)



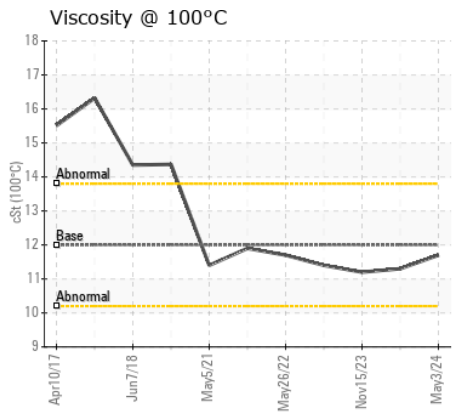
Copper (ppm)



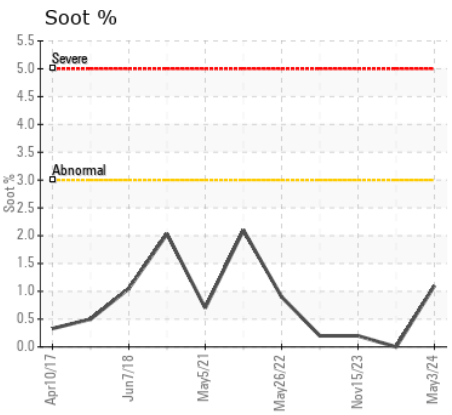
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118958
Lab Number : 02634038
Unique Number : 5775191
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 08 May 2024
Tested : 08 May 2024
Diagnosed : 08 May 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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