MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
428008
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

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

CONTAMINATION

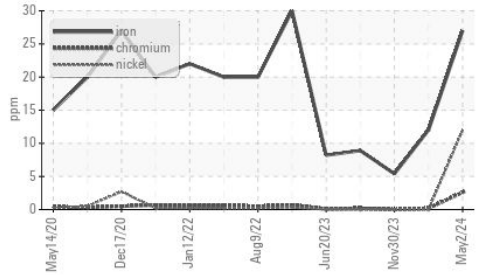
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

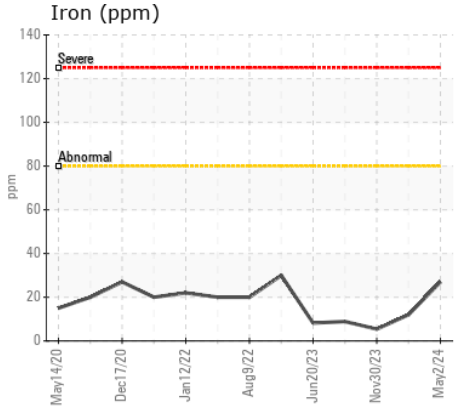
Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113230	GFL0113229	GFL0097313
Sample Date		Client Info		02 May 2024	15 Apr 2024	30 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		11901	11794	11219
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	MARGINAL
Iron	ppm	ASTM D5185(m)	>80	27	12	5
Chromium	ppm	ASTM D5185(m)	>5	3	<1	0
Nickel	ppm	ASTM D5185(m)	>2	▲ 12	0	0
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	8	2	1
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>150	2	<1	<1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>20	4	3	2
Potassium	ppm	ASTM D5185(m)	>20	4	2	4
Fuel	%	ASTM D7593*	>5	1.5	▲ 3.6	▲ 2.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.4	0.4	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.9	11.4	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.7	23.3	21.5
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		5	1	2
Boron	ppm	ASTM D5185(m)	0	32	● 42	116
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	13	36	3
Manganese	ppm	ASTM D5185(m)	0	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	159	● 375	23
Calcium	ppm	ASTM D5185(m)	1070	1993	● 1719	1994
Phosphorus	ppm	ASTM D5185(m)	1150	881	● 694	881
Zinc	ppm	ASTM D5185(m)	1270	1065	● 861	1078
Sulfur	ppm	ASTM D5185(m)	2060	2654	2124	2738
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8	23.5	17.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.6	▲ 11.3	12.4

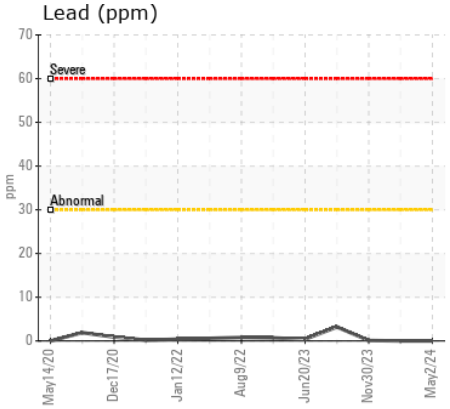
Ferrous Alloys



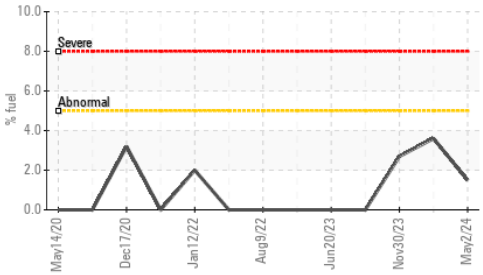
Iron (ppm)



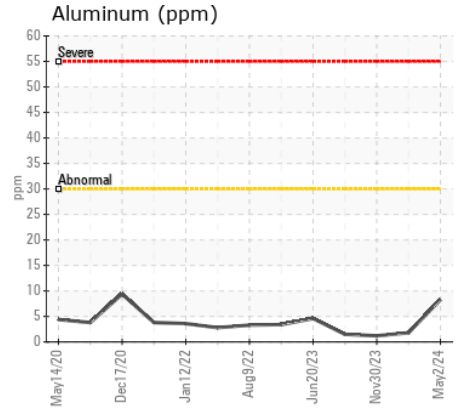
Lead (ppm)



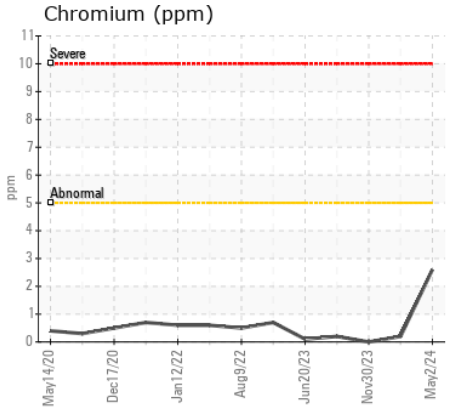
Fuel Dilution



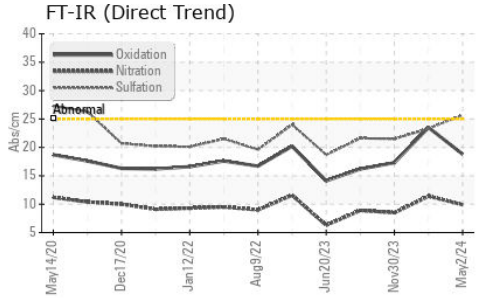
Aluminum (ppm)



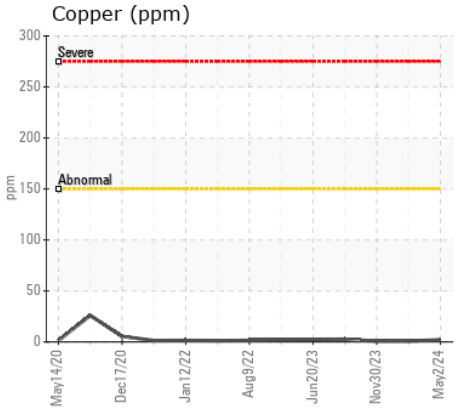
Chromium (ppm)



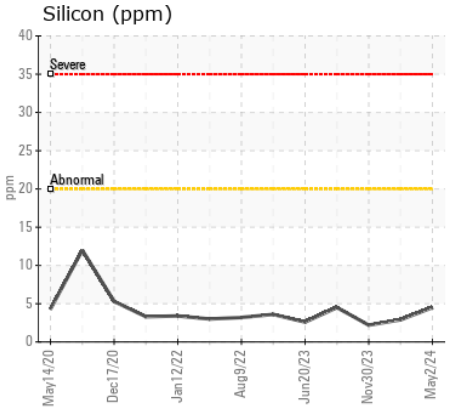
FT-IR (Direct Trend)



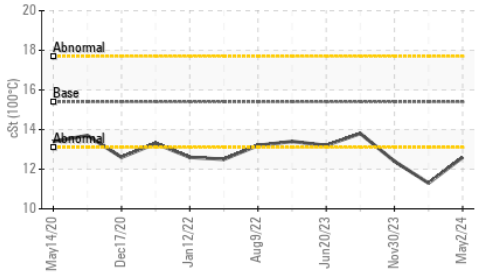
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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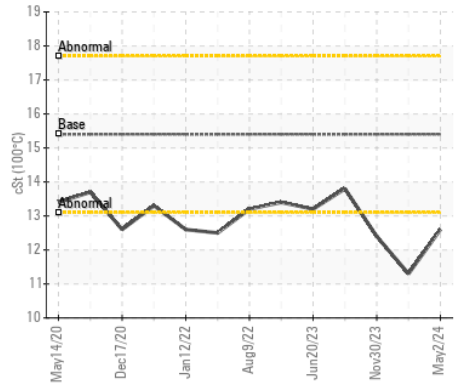
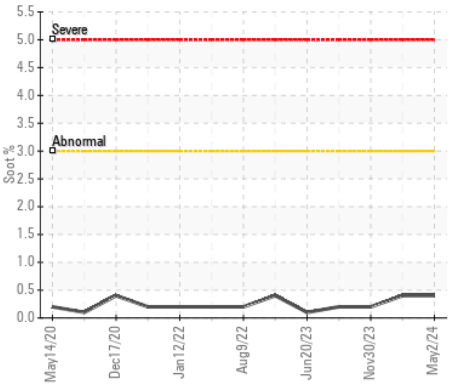
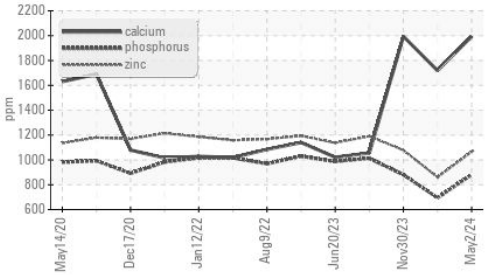


Soot %



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113230
Lab Number : 02633406
Unique Number : 5774559
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 06 May 2024
Tested : 07 May 2024
Diagnosed : 07 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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