MOB II LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
801106
Component
Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

RECOMMENDATION

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

WEAR

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

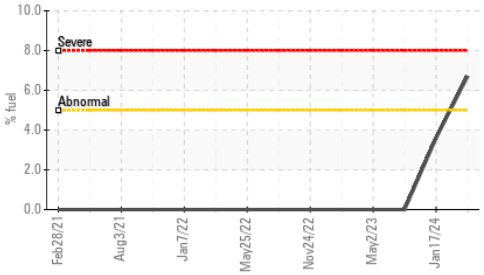
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

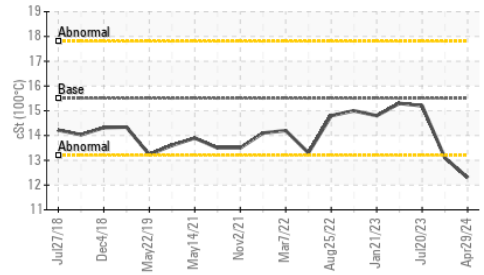
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117297	GFL0099555	GFL0084287
Sample Date		Client Info		29 Apr 2024	17 Jan 2024	20 Jul 2023
Machine Age	hrs	Client Info		12188	11640	216145
Oil Age	hrs	Client Info		548	465	0
Filter Age	hrs	Client Info		548	465	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	MARGINAL	NORMAL
PQ		ASTM D8184*	>65	0	---	---
Iron	ppm	ASTM D5185(m)	>80	▲ 91	35	49
Chromium	ppm	ASTM D5185(m)	>5	2	2	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	7	6	7
Lead	ppm	ASTM D5185(m)	>30	0	<1	0
Copper	ppm	ASTM D5185(m)	>150	2	2	2
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>20	15	15	9
Potassium	ppm	ASTM D5185(m)	>20	4	2	<1
Fuel	%	ASTM D7593*	>5	▲ 6.7	▲ 3.6	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.7	0.3	0.7
Nitration	Abs/cm	ASTM D7624*	>20	12.2	7.5	13.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.5	19.3	27.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		6	2	7
Boron	ppm	ASTM D5185(m)	1	2	3	3
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	53	55	61
Manganese	ppm	ASTM D5185(m)	1	1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	858	893	1010
Calcium	ppm	ASTM D5185(m)	1070	952	1006	1105
Phosphorus	ppm	ASTM D5185(m)	1150	873	974	1079
Zinc	ppm	ASTM D5185(m)	1270	1075	1130	1250
Sulfur	ppm	ASTM D5185(m)	2060	2161	2667	2449
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.2	15.5	28.8
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	7.25	9.51	7.13
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	▲ 12.3	13.1	15.2

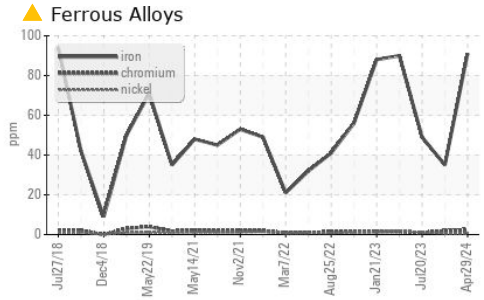
Fuel Dilution



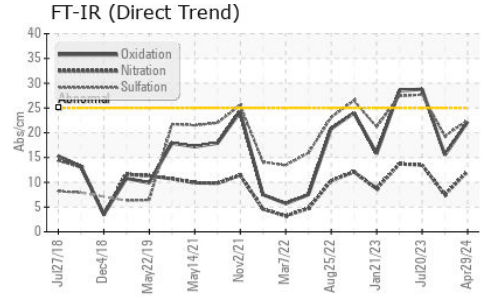
Viscosity @ 100°C



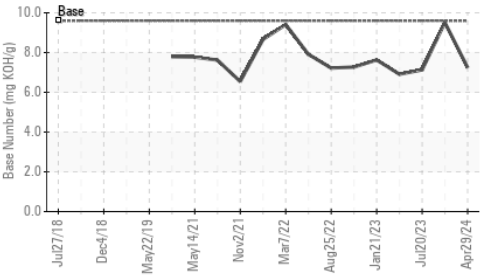
Ferrous Alloys



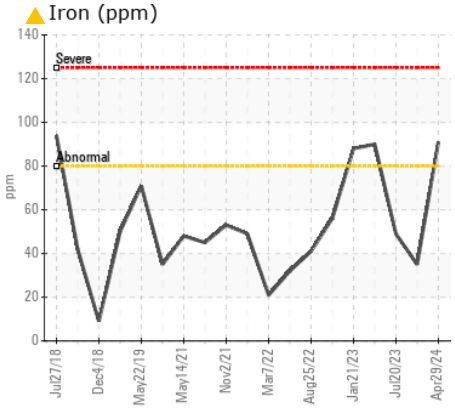
FT-IR (Direct Trend)



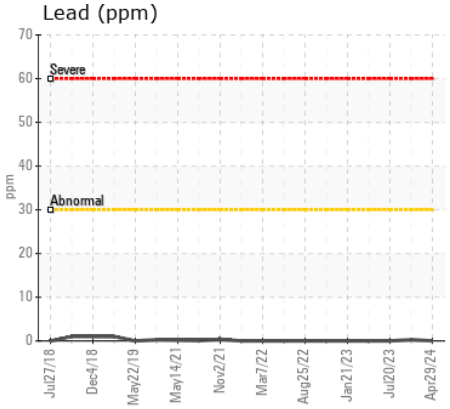
Base Number



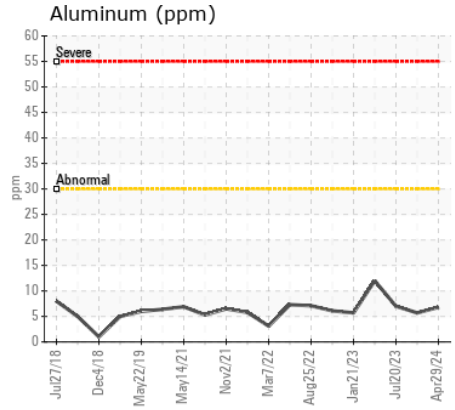
Iron (ppm)



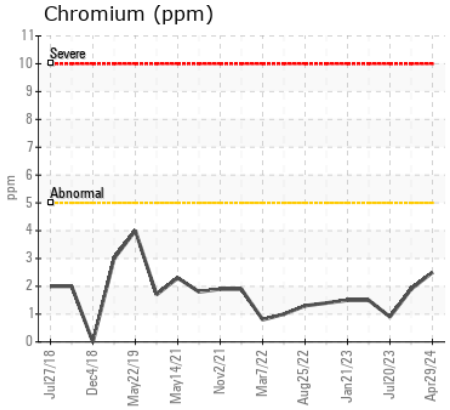
Lead (ppm)



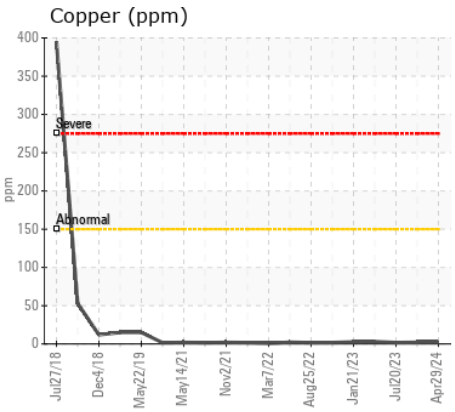
Aluminum (ppm)



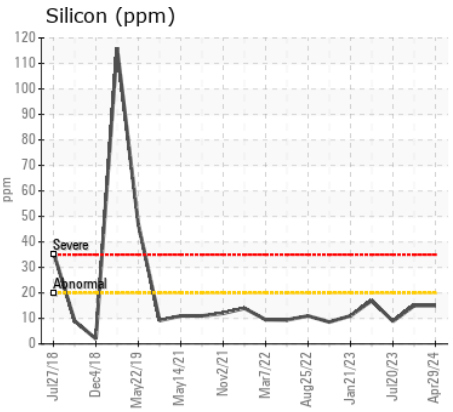
Chromium (ppm)



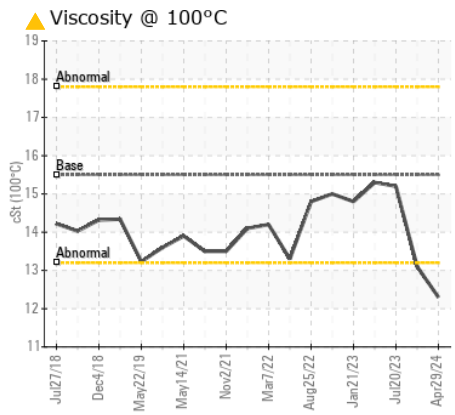
Copper (ppm)



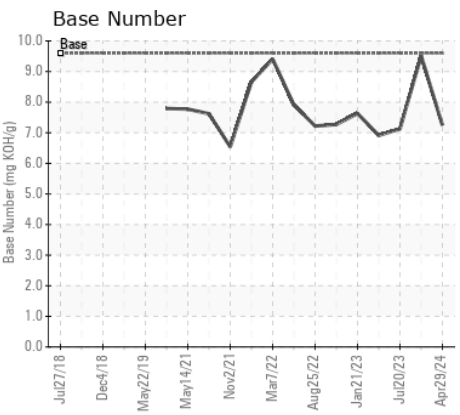
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117297
Lab Number : 02633819
Unique Number : 5774972
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel, PQ)

Received : 07 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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