MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
351107
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME SYNTHETIC 5W40 (20 LTR)

RECOMMENDATION

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

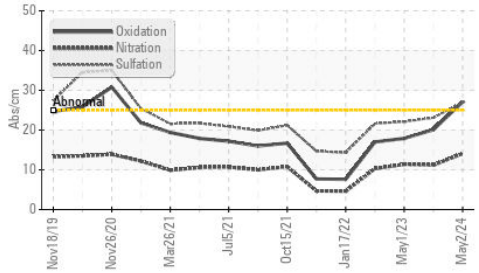
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

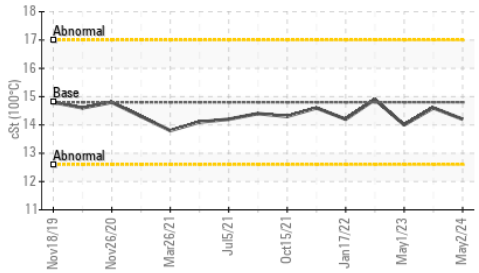
A small degree of oil oxidation was indicated. The oil is no longer serviceable.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0088290	PC0078576	PC0075303
Sample Date		Client Info		02 May 2024	24 Jul 2023	01 May 2023
Machine Age	hrs	Client Info		8677	0	7280
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	31	21	16
Chromium	ppm	ASTM D5185(m)	>20	<1	1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	5	3	5
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	4	4	4
Potassium	ppm	ASTM D5185(m)	>20	7	4	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	0.9	0.6	0.4
Nitration	Abs/cm	ASTM D7624*	>20	14.1	11.2	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.9	23.1	22.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		9	8	6
Boron	ppm	ASTM D5185(m)	190	23	27	46
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	79	61	58	71
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	564	927	851	19
Calcium	ppm	ASTM D5185(m)	993	1058	1109	2315
Phosphorus	ppm	ASTM D5185(m)	763	930	1026	1074
Zinc	ppm	ASTM D5185(m)	835	1186	1171	1162
Sulfur	ppm	ASTM D5185(m)	2536	2753	2912	4072
Oxidation	Abs/.1mm	ASTM D7414*	>25	27.1	20.1	17.9
Visc @ 40°C	cSt	ASTM D7279(m)	91.3	92.0	92.3	99.4
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	14.2	14.6	14.0
Viscosity Index (VI)	Scale	ASTM D2270*	170	159	164	143

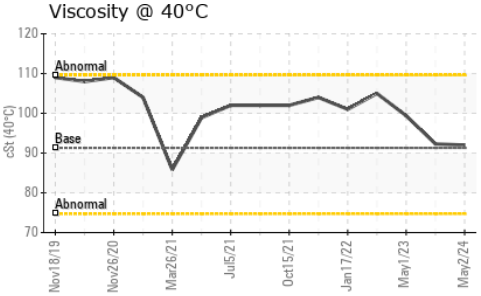
FT-IR (Direct Trend)



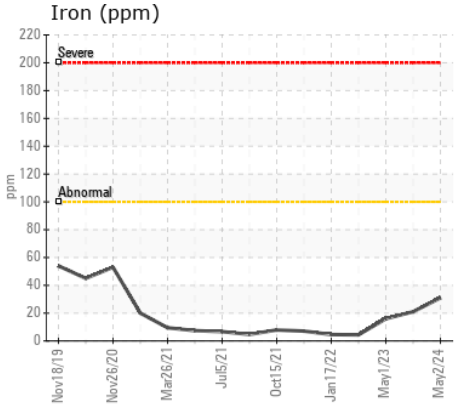
Viscosity @ 100°C



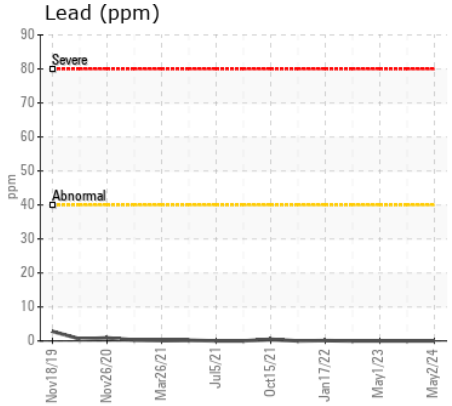
Viscosity @ 40°C



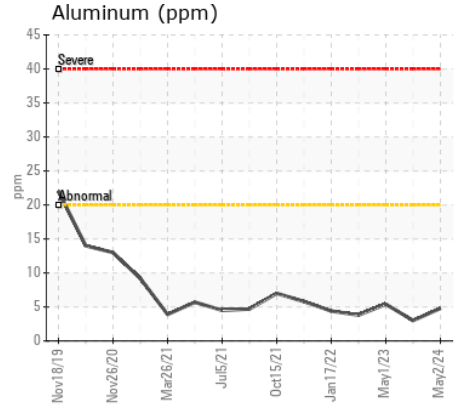
Iron (ppm)



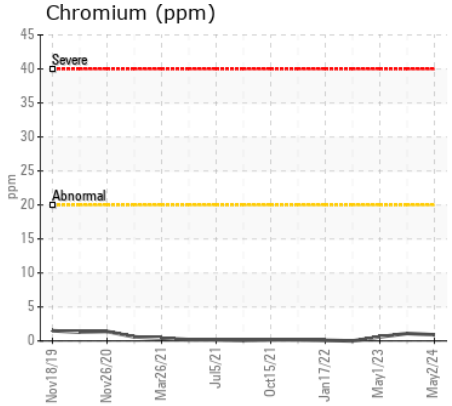
Lead (ppm)



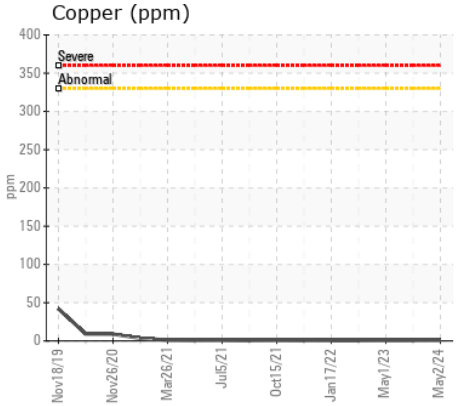
Aluminum (ppm)



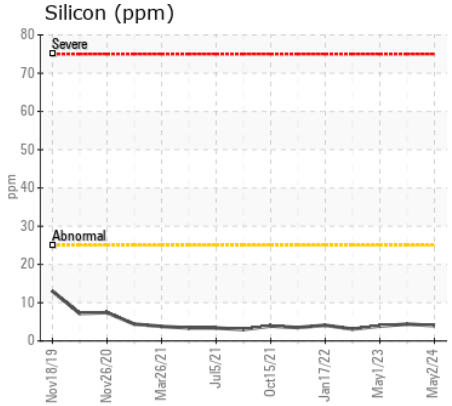
Chromium (ppm)



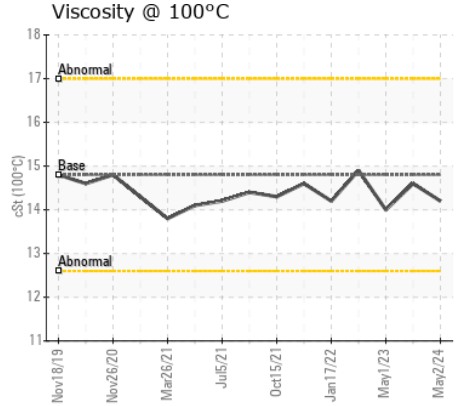
Copper (ppm)



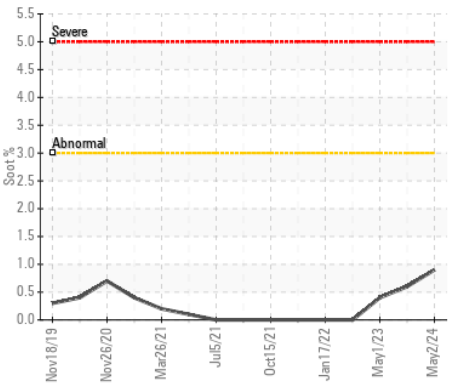
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088290
Lab Number : 02634527
Unique Number : 5775680
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 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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