

Machine Id
1521
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083630	PC0075859	PC0070841
Sample Date		Client Info		16 Jan 2024	10 Oct 2023	16 Apr 2023
Machine Age	hrs	Client Info		2916	2499	1535
Oil Age	hrs	Client Info		0	0	0
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	28	33	51
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	11	17	30
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	1	2	3
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

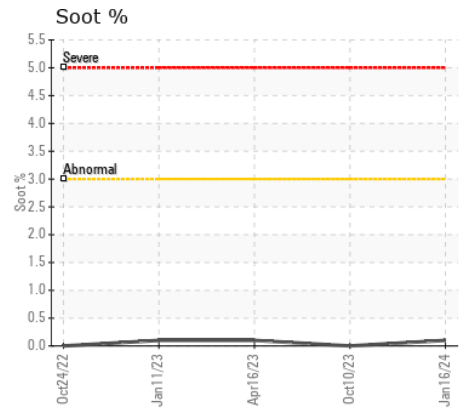
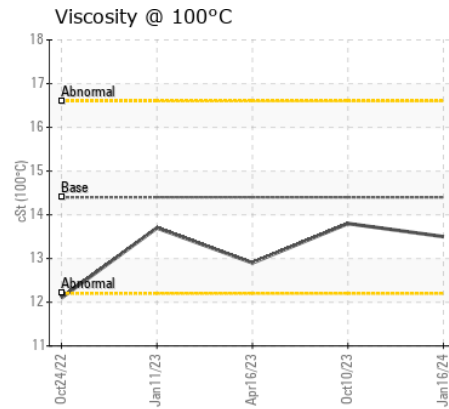
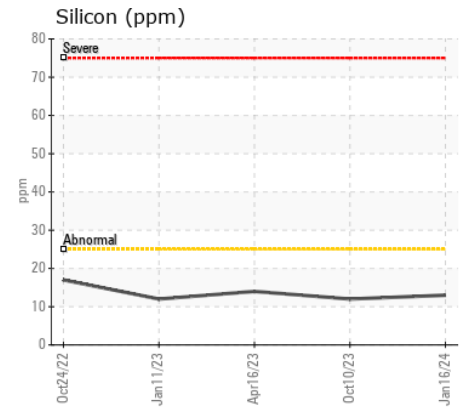
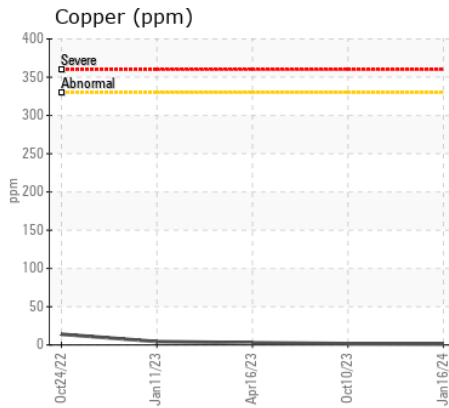
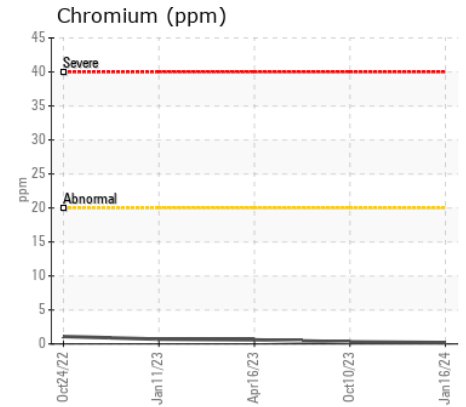
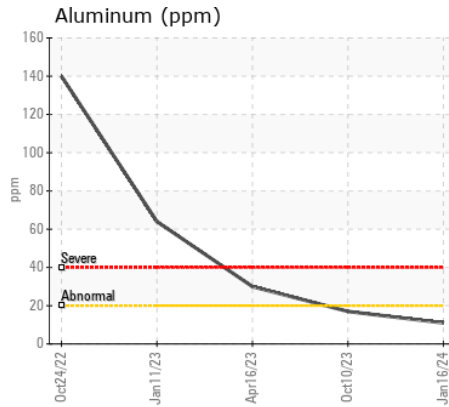
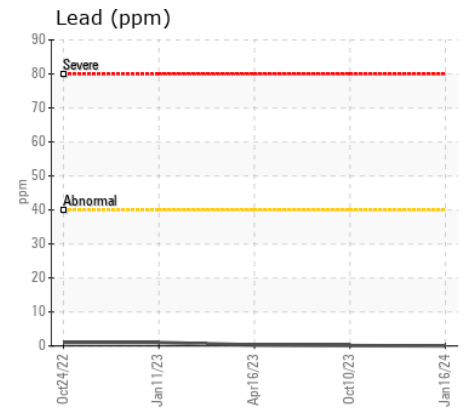
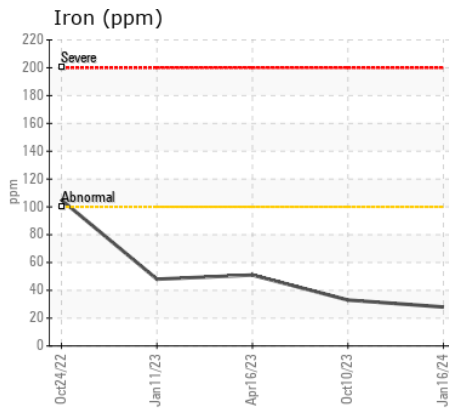
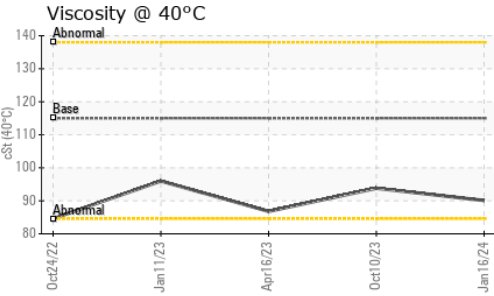
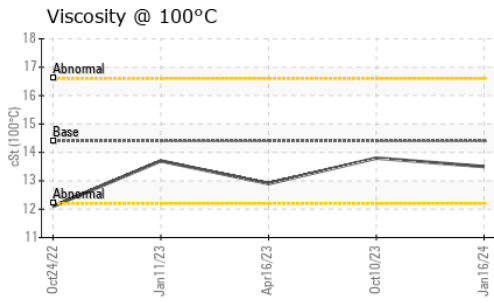
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	13	12	14
Potassium	ppm	ASTM D5185(m)	>20	20	37	54
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	9.7	6.0	10.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	18.7	20.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	2	2	2
Boron	ppm	ASTM D5185(m)	250	1	1	6
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	55	60	62
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	913	974	968
Calcium	ppm	ASTM D5185(m)	3000	1305	1180	1200
Phosphorus	ppm	ASTM D5185(m)	1150	1059	1041	1100
Zinc	ppm	ASTM D5185(m)	1350	1230	1268	1227
Sulfur	ppm	ASTM D5185(m)	4250	2823	2507	2643
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0	13.4	16.6
Visc @ 40°C	cSt	ASTM D7279(m)	115	90.1	93.8	86.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.5	13.8	12.9
Viscosity Index (VI)	Scale	ASTM D2270*	126	151	149	147



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 LES ENTREPRISES MICHAUVILLE INC.
Sample No. : PC0083630 **Received** : 17 Jan 2024
Lab Number : 02609247 **Diagnosed** : 18 Jan 2024
Unique Number : 5710333 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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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