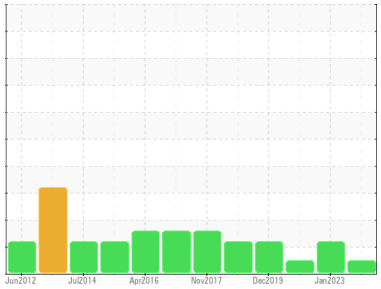
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
KME L20
Component
Front Diesel Engine
Fluid
SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (38 LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
Test for glycol is negative. There is no indication of any contamination in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0078177**	PC0054295	PC0028926
Sample Date		Client Info		**17 Feb 2024**	20 Jan 2023	04 May 2021
Machine Age	kms	Client Info		**35717**	23174	6740
Oil Age	kms	Client Info		**12000**	10000	1740
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**NORMAL**	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	0.5
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>85	**48**	67	13
Chromium	ppm	ASTM D5185(m)	>5	**6**	7	<1
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	0	<1
Aluminum	ppm	ASTM D5185(m)	>40	**6**	5	1
Lead	ppm	ASTM D5185(m)	>25	**6**	5	<1
Copper	ppm	ASTM D5185(m)	>350	**9**	18	3
Tin	ppm	ASTM D5185(m)	>5	**2**	3	1
Antimony	ppm	ASTM D5185(m)		**0**	<1	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**3**	15	16
Barium	ppm	ASTM D5185(m)		**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**62**	78	53
Manganese	ppm	ASTM D5185(m)		**<1**	3	<1
Magnesium	ppm	ASTM D5185(m)		**945**	930	884
Calcium	ppm	ASTM D5185(m)		**1074**	1092	1166
Phosphorus	ppm	ASTM D5185(m)		**909**	947	1014
Zinc	ppm	ASTM D5185(m)		**1173**	1202	1245
Sulfur	ppm	ASTM D5185(m)		**2478**	2669	2793
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>40	**14**	44	9
Sodium	ppm	ASTM D5185(m)		**186**	1360	4
Potassium	ppm	ASTM D5185(m)	>20	**16**	165	2
Glycol	%	ASTM D7922*		**0.0**	0.0	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.7**	0.6	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**11.1**	14.0	6.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.4**	29.4	19.4

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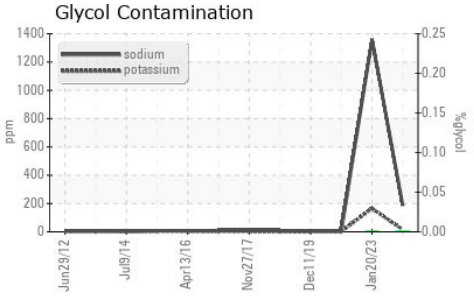
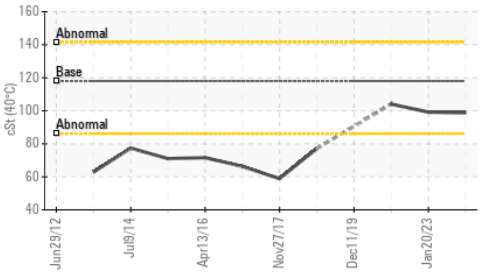
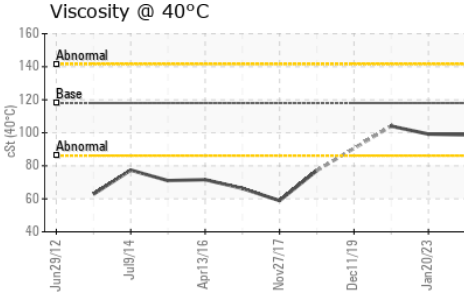
Glycol Contamination



Viscosity @ 40°C



Viscosity @ 40°C



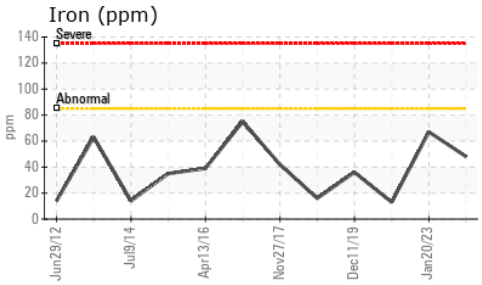
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.8**	21.1	14.2

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

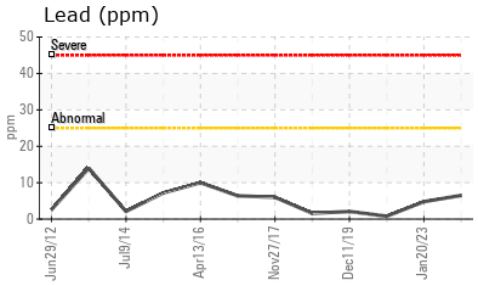
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118	**98.7**	99.2	104
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	**13.6**	13.3	13.8
Viscosity Index (VI)	Scale	ASTM D2270*	140	**138**	132	133

GRAPHS

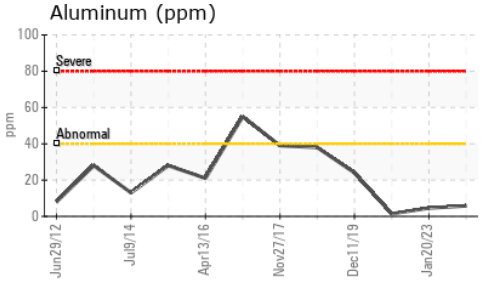
Iron (ppm)



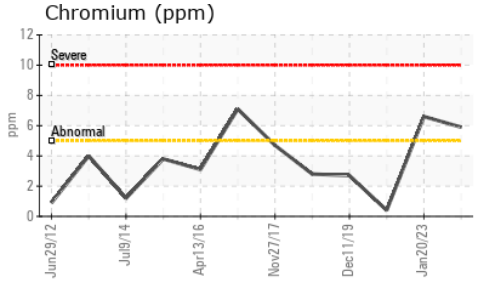
Lead (ppm)



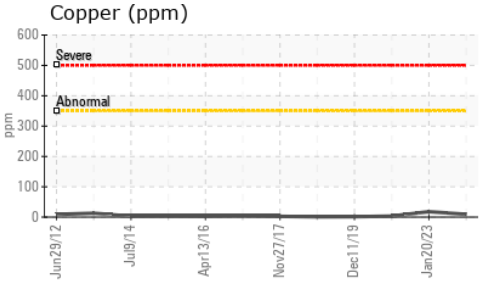
Aluminum (ppm)



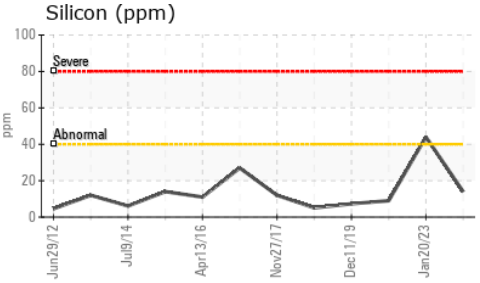
Chromium (ppm)



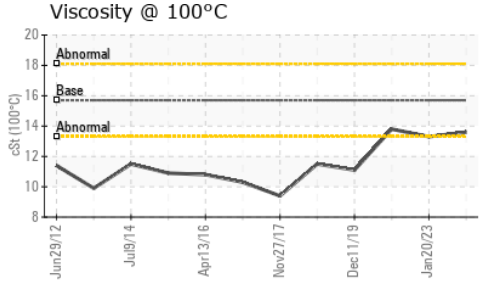
Copper (ppm)



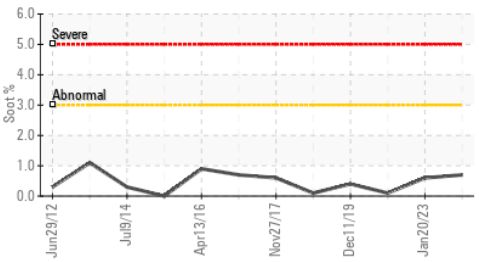
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078177 **Received** : 05 Mar 2024
Lab Number : 02619897 **Tested** : 05 Mar 2024
Unique Number : 5737007 **Diagnosed** : 05 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, 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.

HAMILTON FIRE DEPT
MECHANICAL DIV., 177 BAY STREET NORTH
HAMILTON, ON
CA L8R 2P8
Contact: Jenny-Lynn Pellegrino
jenny-lynn.pellegrino@hamilton.ca
T: (905)546-2424
F: (905)961-9116