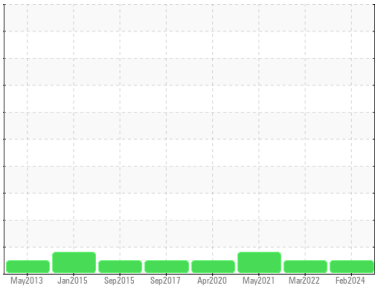
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
KME TK26
Component
Front Diesel Engine
Fluid
SAFETY-KLEEN PERFORMANCE PLUS 15W40 (40 LTR)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

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

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
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0078179**	PC0050565	PC0028928
Sample Date		Client Info		**29 Feb 2024**	25 Mar 2022	13 May 2021
Machine Age	kms	Client Info		**36448**	32176	30578
Oil Age	kms	Client Info		**2000**	2000	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**NORMAL**	NORMAL	MARGINAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	▲ 2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>85	**8**	11	25
Chromium	ppm	ASTM D5185(m)	>5	**<1**	<1	2
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>40	**6**	6	14
Lead	ppm	ASTM D5185(m)	>25	**2**	1	3
Copper	ppm	ASTM D5185(m)	>350	**8**	7	21
Tin	ppm	ASTM D5185(m)	>5	**1**	1	3
Antimony	ppm	ASTM D5185(m)		**0**	0	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)	1.4	**2**	1	1
Barium	ppm	ASTM D5185(m)	0.1	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0.1	**56**	57	53
Manganese	ppm	ASTM D5185(m)		**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	2.7	**932**	987	866
Calcium	ppm	ASTM D5185(m)	2328	**1009**	977	941
Phosphorus	ppm	ASTM D5185(m)	924	**1004**	1043	908
Zinc	ppm	ASTM D5185(m)	1004	**1140**	1176	1096
Sulfur	ppm	ASTM D5185(m)	3828	**2711**	2590	2504
Lithium	ppm	ASTM D5185(m)		**<1**	0	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>40	**4**	4	6
Sodium	ppm	ASTM D5185(m)		**5**	1	2
Potassium	ppm	ASTM D5185(m)	>20	**8**	5	13

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**5.8**	5.8	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.0**	19.4	19.2

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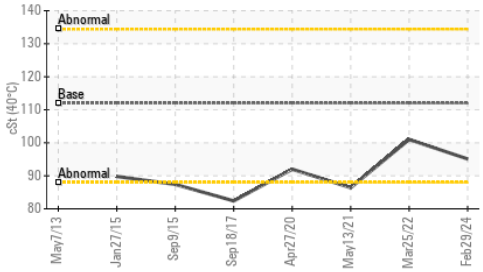
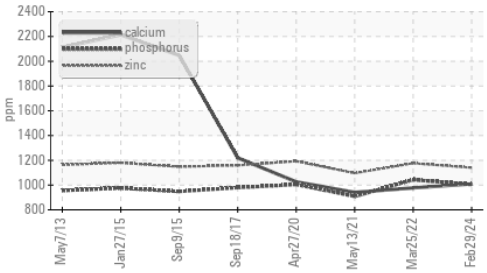
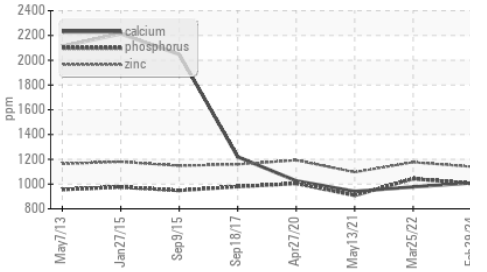
Viscosity @ 40°C



Additives



Additives



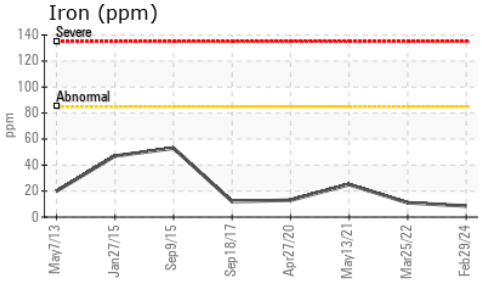
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**14.1**	13.7	14.0

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

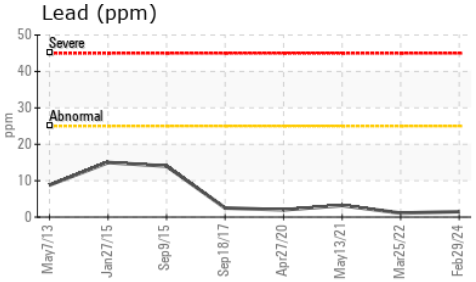
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	112	**95.1**	101	86.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.3	**13.4**	13.8	12.4
Viscosity Index (VI)	Scale	ASTM D2270*	143	**140**	137	139

GRAPHS

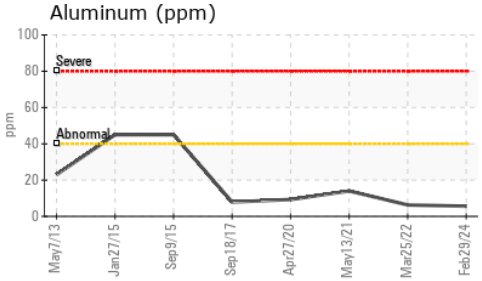
Iron (ppm)



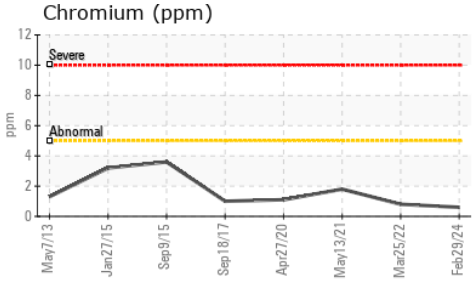
Lead (ppm)



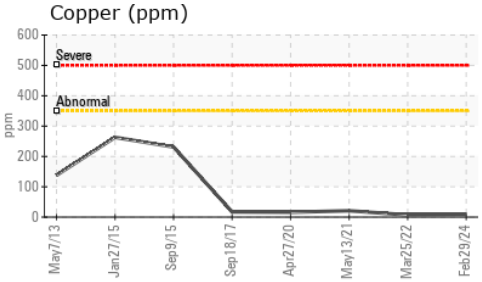
Aluminum (ppm)



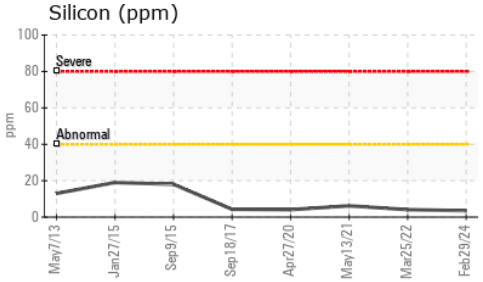
Chromium (ppm)



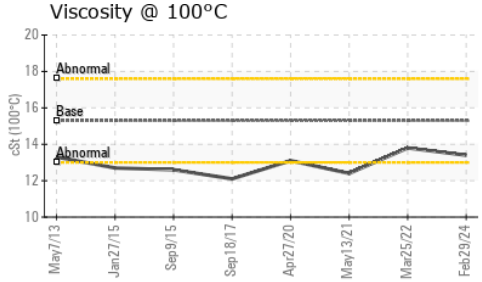
Copper (ppm)



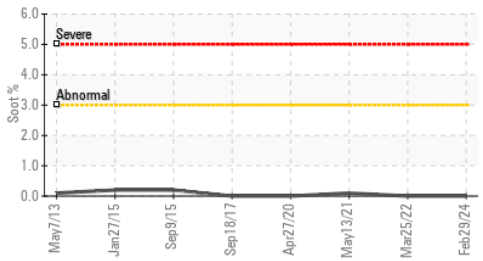
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078179
Lab Number : 02619901
Unique Number : 5737011
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 05 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Wes Davis

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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