



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
AUTOCAR 27242
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0012020	KL0012074	KL0012051
Sample Date		Client Info		02 Feb 2024	10 Nov 2023	25 Jul 2023
Machine Age	mls	Client Info		123522	121076	117798
Oil Age	mls	Client Info		61847	0	0
Filter Age	mls	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				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	26	10	23
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	2	1
Lead	ppm	ASTM D5185m	>40	2	<1	0
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

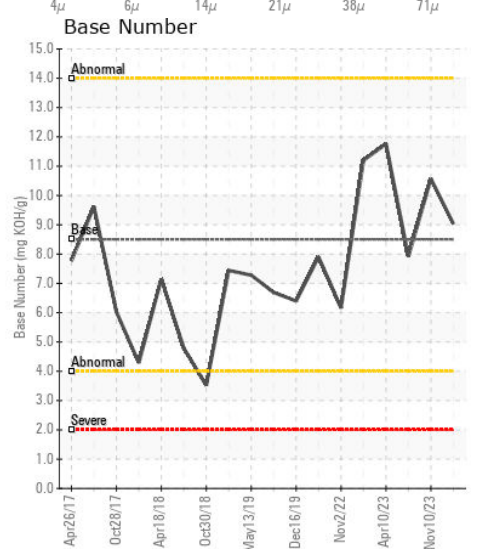
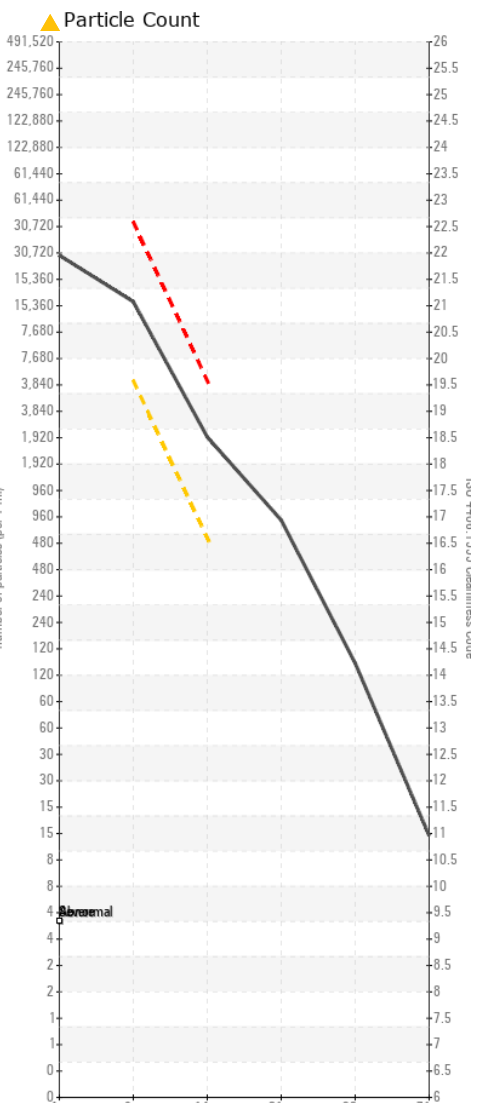
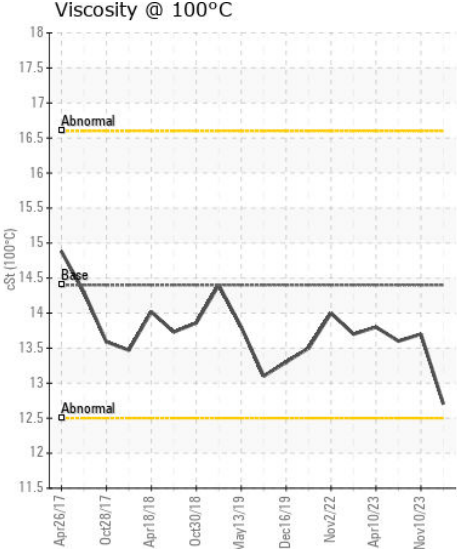
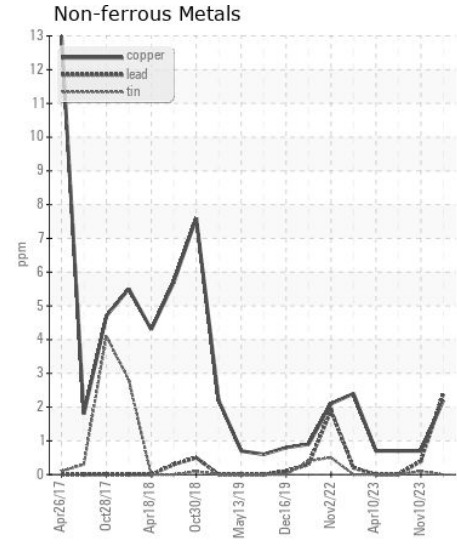
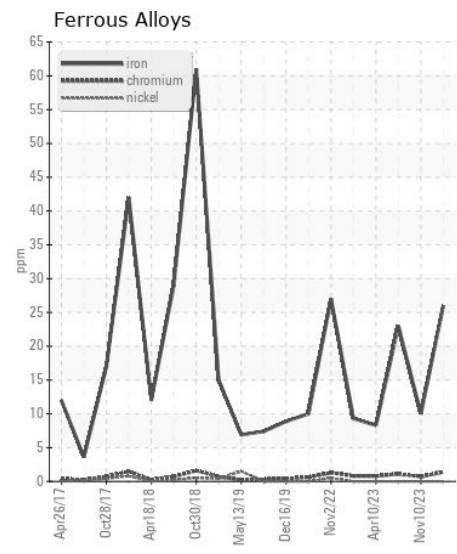
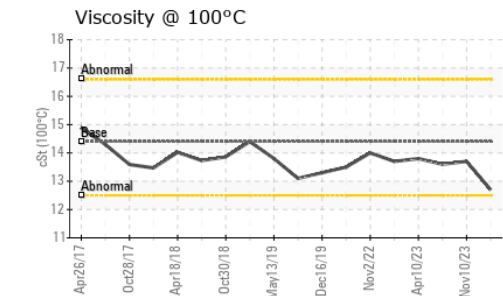
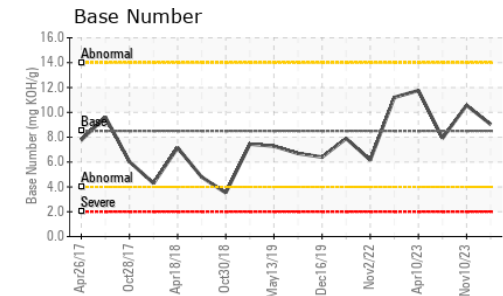
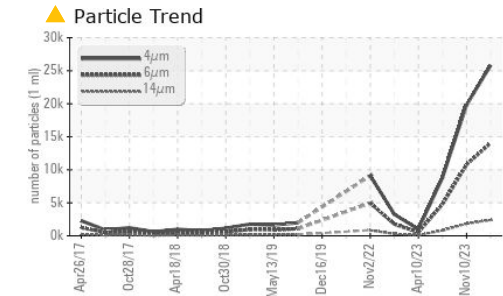
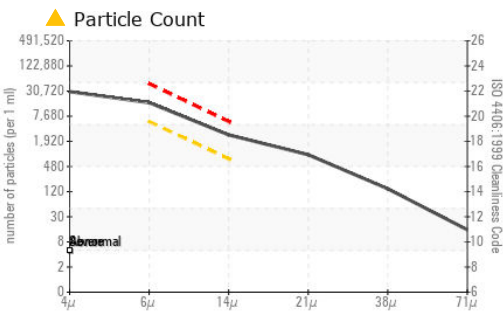
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	6	5	8
Potassium	ppm	ASTM D5185m	>20	3	4	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	11.9	9.9	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.5	22.9	25.6
Particles >4µm		ASTM D7647		25821	19809	8822
Particles >6µm		ASTM D7647	>5000	▲ 14066	▲ 10791	▲ 4806
Particles >14µm		ASTM D7647	>640	▲ 2394	▲ 1837	▲ 818
Particles >21µm		ASTM D7647	>160	▲ 806	▲ 619	▲ 275
Particles >38µm		ASTM D7647	>40	▲ 124	▲ 96	▲ 43
Particles >71µm		ASTM D7647	>10	▲ 13	10	4
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 21/18	▲ 21/18	▲ 19/17
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	3	4
Boron	ppm	ASTM D5185m	250	35	42	26
Barium	ppm	ASTM D5185m	10	11	0	0
Molybdenum	ppm	ASTM D5185m	100	59	63	68
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	946	1152	1118
Calcium	ppm	ASTM D5185m	3000	920	1032	1031
Phosphorus	ppm	ASTM D5185m	1150	923	1150	1067
Zinc	ppm	ASTM D5185m	1350	1131	1401	1338
Sulfur	ppm	ASTM D5185m	4250	3247	3636	4016
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.7	21.7	26.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.03	10.57	7.92
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	13.7	13.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012020 **Received** : 14 Feb 2024
Lab Number : 06089649 **Tested** : 16 Feb 2024
Unique Number : 10877094 **Diagnosed** : 16 Feb 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)