



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id
AUTOCAR 27237
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (12 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014033	KL0012108	KLM2339325
Sample Date		Client Info		02 Feb 2024	31 Oct 2023	09 Apr 2023
Machine Age	mls	Client Info		66582	63871	63372
Oil Age	mls	Client Info		45786	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				ATTENTION	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	20	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	13	10	11
Tin	ppm	ASTM D5185m	>15	<1	0	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

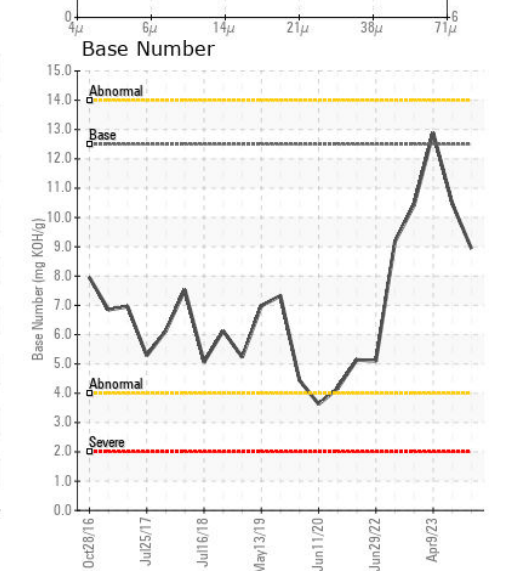
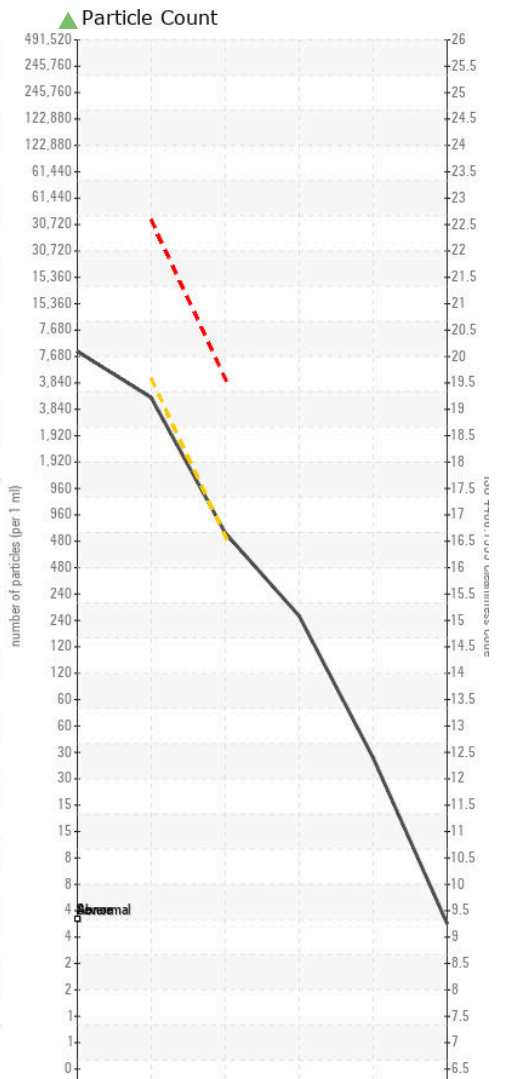
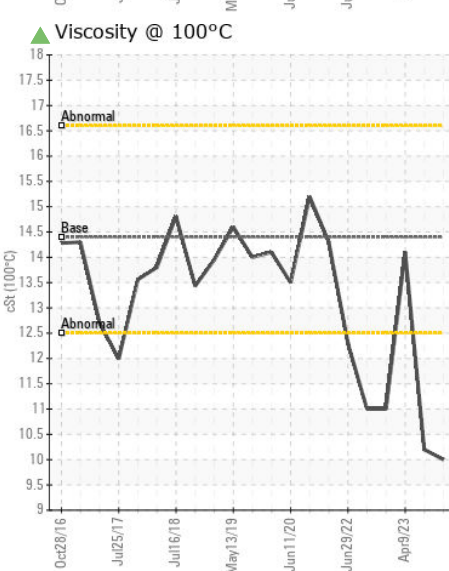
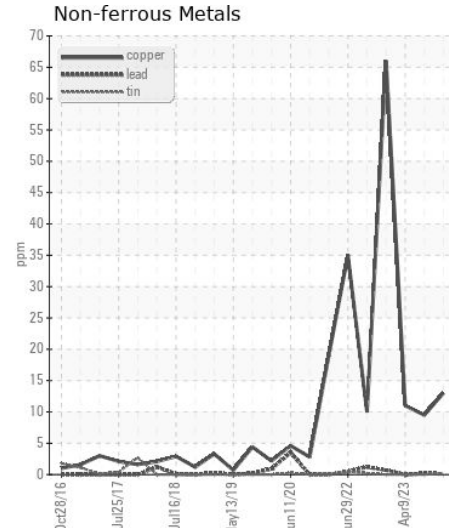
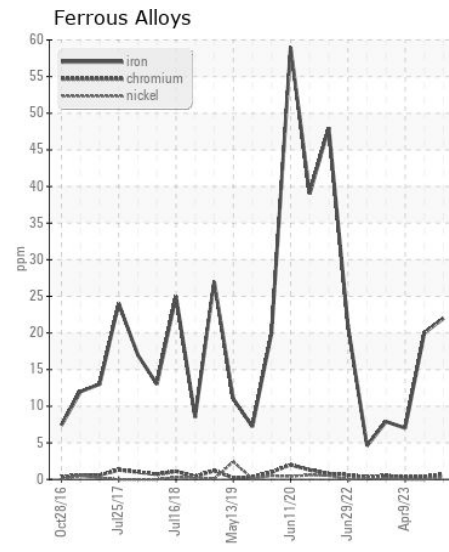
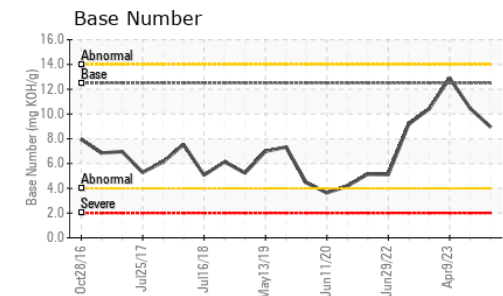
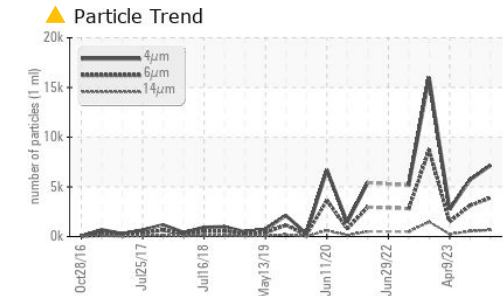
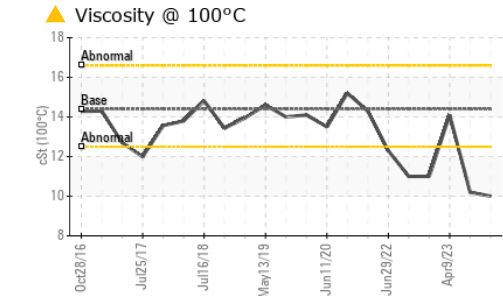
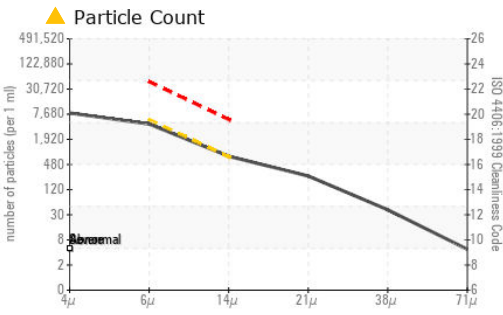
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	7
Potassium	ppm	ASTM D5185m	>20	1	2	1
Fuel		WC Method	>5	<1.0	0.4	0.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.4	7.7	5.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.8	26.9	19.8
Particles >4µm		ASTM D7647		7160	5716	2723
Particles >6µm		ASTM D7647	>5000	3900	3114	1483
Particles >14µm		ASTM D7647	>640	▲ 664	530	252
Particles >21µm		ASTM D7647	>160	▲ 224	178	85
Particles >38µm		ASTM D7647	>40	35	28	13
Particles >71µm		ASTM D7647	>10	4	3	1
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 19/17	19/16	18/15
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		1	2	<1
Boron	ppm	ASTM D5185m	151	40	86	146
Barium	ppm	ASTM D5185m	0.4	5	0	0
Molybdenum	ppm	ASTM D5185m	250	44	51	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	712	930	1146
Calcium	ppm	ASTM D5185m	2046	686	913	955
Phosphorus	ppm	ASTM D5185m	1043	717	1009	1080
Zinc	ppm	ASTM D5185m	943	919	1200	1318
Sulfur	ppm	ASTM D5185m	5012	2362	3216	4277
Oxidation	Abs/.1mm	*ASTM D7414	>25	38.1	32.2	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.94	10.47	12.89
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 10.0	▲ 10.2	14.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014033 **Received** : 14 Feb 2024
Lab Number : 06089617 **Tested** : 15 Feb 2024
Unique Number : 10877062 **Diagnosed** : 16 Feb 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

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Certificate L2367
 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)