



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
2004 MACK 86
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013647	KL0013195	KL0007253
Sample Date		Client Info		21 May 2024	31 Oct 2023	06 Jul 2023
Machine Age	mls	Client Info		530063	525309	517199
Oil Age	mls	Client Info		24124	19370	11260
Filter Age	mls	Client Info		24124	19370	11260
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	44	39	32
Chromium	ppm	ASTM D5185m	>4	<1	1	<1
Nickel	ppm	ASTM D5185m	>7	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	6	6	5
Lead	ppm	ASTM D5185m	>40	8	10	5
Copper	ppm	ASTM D5185m	>200	3	3	3
Tin	ppm	ASTM D5185m	>4	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

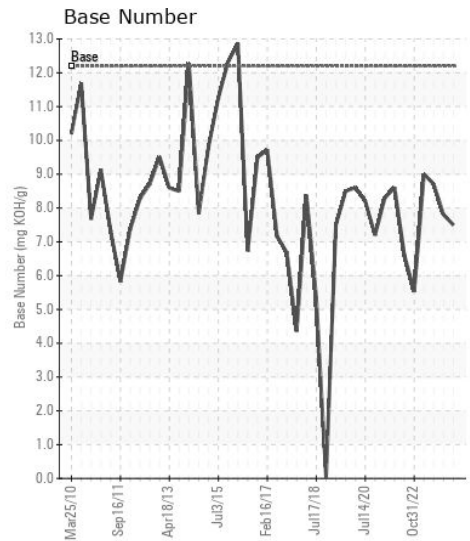
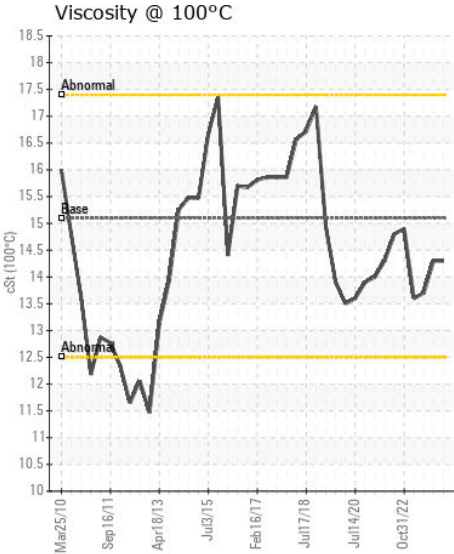
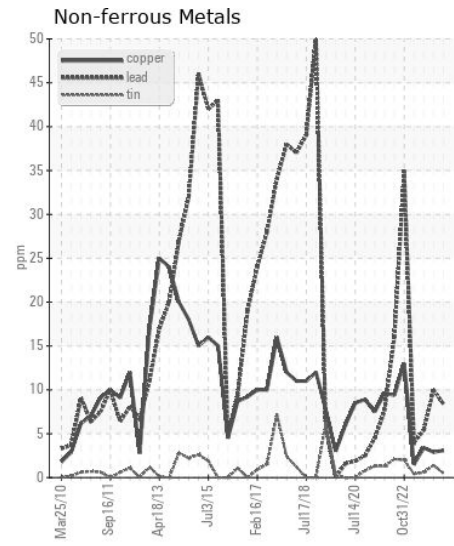
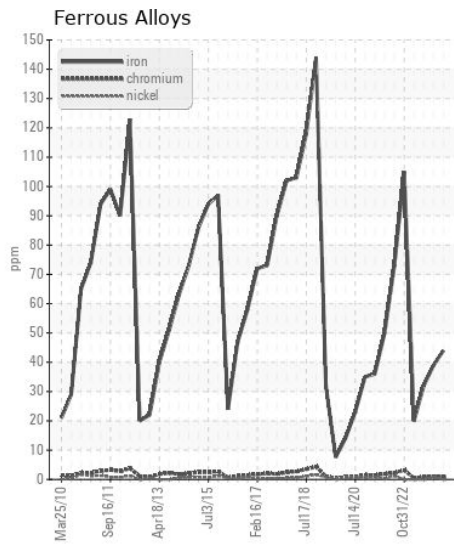
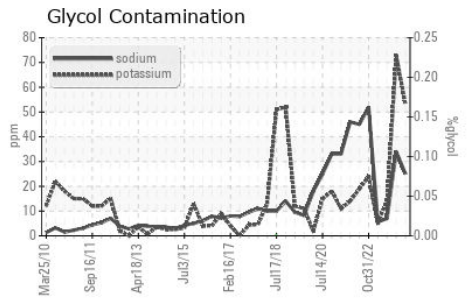
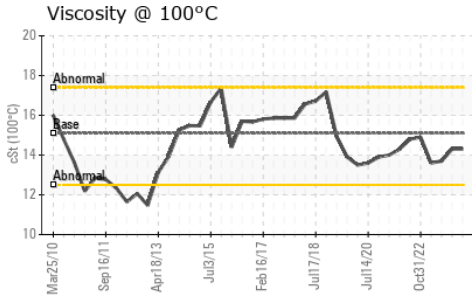
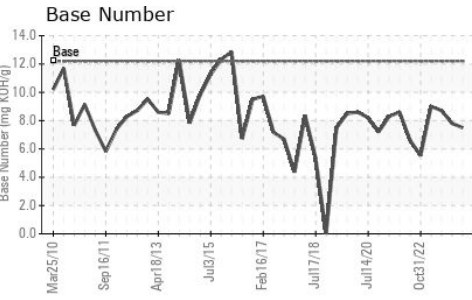
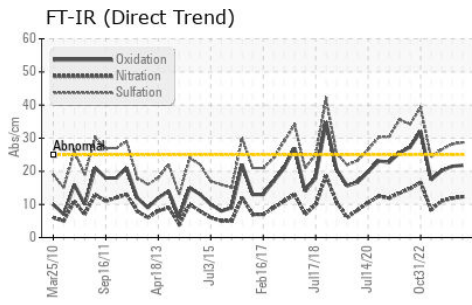
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	10	8	7
Potassium	ppm	ASTM D5185m	>20	▲ 53	▲ 73	14
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	2.2	2.1	1.5
Nitration	Abs/cm	*ASTM D7624	>20	12.3	11.9	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.7	28.2	26.6
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.

Sodium	ppm	ASTM D5185m		25	34	7
Boron	ppm	ASTM D5185m		137	119	191
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		127	124	133
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		751	731	678
Calcium	ppm	ASTM D5185m		1621	1597	1649
Phosphorus	ppm	ASTM D5185m	1360	808	765	771
Zinc	ppm	ASTM D5185m	1480	926	956	927
Sulfur	ppm	ASTM D5185m		2902	2707	2597
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	21.5	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	7.5	7.8	8.7
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.3	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013647
Lab Number : 06191710
Unique Number : 11048462
Test Package : FLEET (Additional Tests: Glycol)

Received : 24 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Sean Felton

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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)

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