



Machine Id
MACK R0690A 520210 (S/N 1M2P261XY0TM022522)
Component
Diesel Engine
Fluid
CASTROL 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0100964	PCA0068840	PCA0054504
Sample Date		Client Info		24 Jan 2024	25 Jan 2023	11 Jan 2022
Machine Age	mls	Client Info		111110	97718	91291
Oil Age	mls	Client Info		13382	6427	11636
Filter Age	mls	Client Info		13382	6427	11636
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	54	40	83
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	<1
Lead	ppm	ASTM D5185m	>40	<1	0	2
Copper	ppm	ASTM D5185m	>330	2	2	4
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

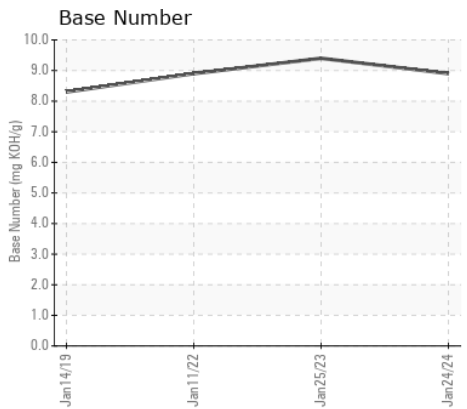
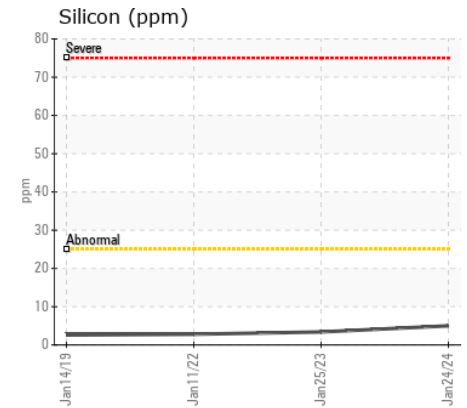
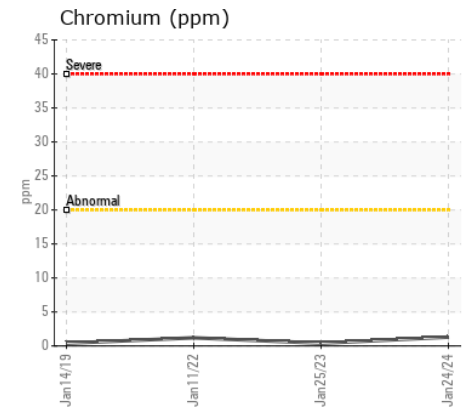
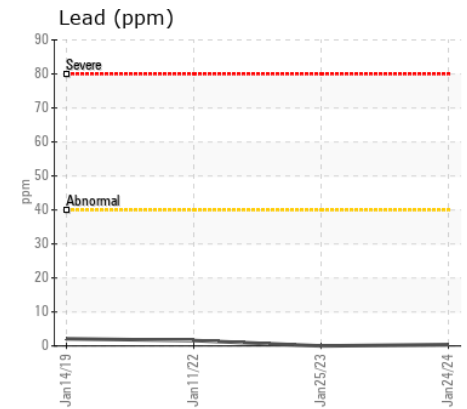
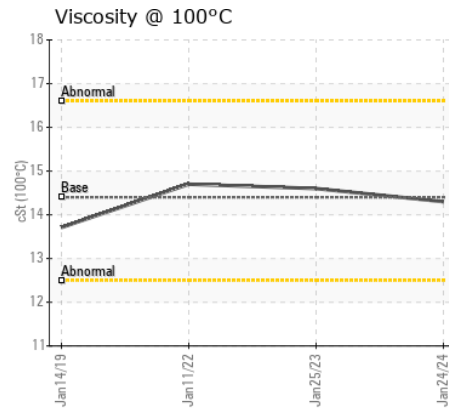
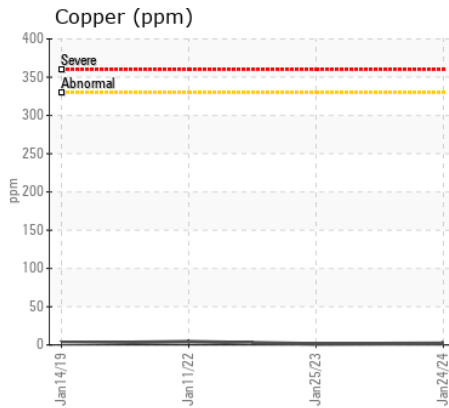
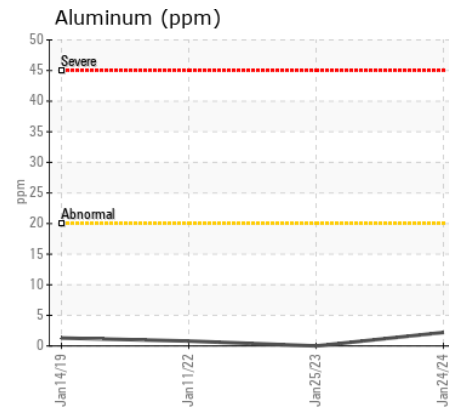
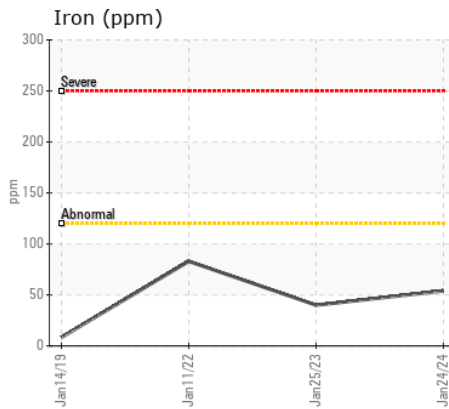
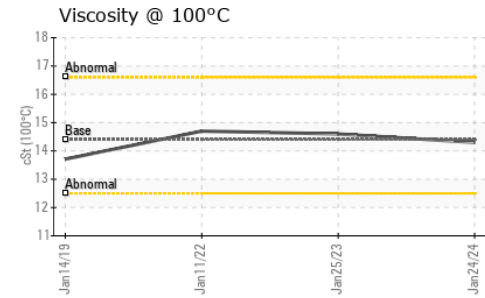
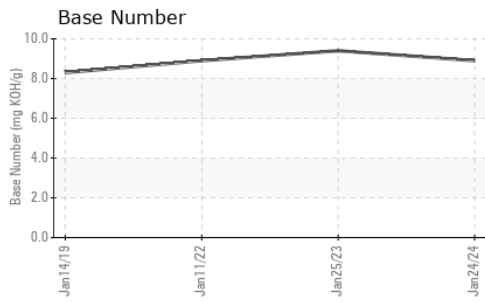
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	3	3
Potassium	ppm	ASTM D5185m	>20	1	2	0
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	>4	1.7	1.2	2.1
Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.3	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	20.4	23.3
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	>406	3	0	3
Boron	ppm	ASTM D5185m		45	87	6
Barium	ppm	ASTM D5185m		34	0	0
Molybdenum	ppm	ASTM D5185m		55	63	64
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		899	961	969
Calcium	ppm	ASTM D5185m		866	1072	1140
Phosphorus	ppm	ASTM D5185m		889	1034	1000
Zinc	ppm	ASTM D5185m		1102	1230	1291
Sulfur	ppm	ASTM D5185m		3107	3092	2774
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	14.7	16.4
Base Number (BN)	mg KOH/g	ASTM D2896		8.9	9.4	8.9
Visc @ 100°C	cSt	ASTM D445	14.4	14.3	14.6	14.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100964 **Received** : 26 Feb 2024
Lab Number : 06099857 **Tested** : 27 Feb 2024
Unique Number : 10898087 **Diagnosed** : 27 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

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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