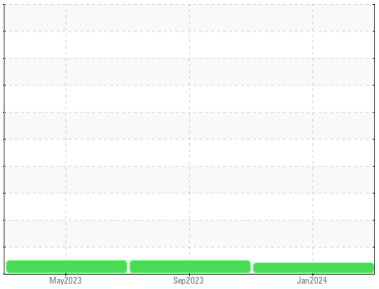
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Area
(AT652T) Supermarket - Tractor
Machine Id
MACK 107A1856
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0116970**	PCA0104084	PCA0097065
Sample Date		Client Info		**31 Jan 2024**	07 Sep 2023	17 May 2023
Machine Age	mls	Client Info		**279445**	276068	272579
Oil Age	mls	Client Info		**3377**	3489	2634
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**ATTENTION**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	**15**	26	15
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	2	<1
Titanium	ppm	ASTM D5185m	>2	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**1**	4	3
Lead	ppm	ASTM D5185m	>40	**0**	<1	<1
Copper	ppm	ASTM D5185m	>330	**3**	6	3
Tin	ppm	ASTM D5185m	>15	**0**	<1	1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	**31**	23	28
Barium	ppm	ASTM D5185m	0	**9**	0	0
Molybdenum	ppm	ASTM D5185m	50	**67**	67	64
Manganese	ppm	ASTM D5185m	0	**0**	1	<1
Magnesium	ppm	ASTM D5185m	950	**839**	963	941
Calcium	ppm	ASTM D5185m	1050	**998**	1208	1162
Phosphorus	ppm	ASTM D5185m	995	**841**	1100	1082
Zinc	ppm	ASTM D5185m	1180	**1162**	1325	1323
Sulfur	ppm	ASTM D5185m	2600	**2654**	3968	4001

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**3**	4	4
Sodium	ppm	ASTM D5185m		**0**	2	<1
Potassium	ppm	ASTM D5185m	>20	**2**	1	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.1**	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**5.6**	7.9	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**17.5**	17.8	17.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.1**	13.7	13.1
Base Number (BN)	mg KOH/g	ASTM D2896		**8.8**	8.8	8.9

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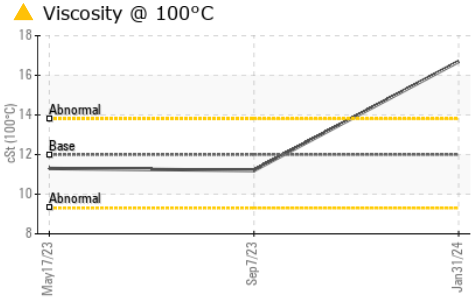
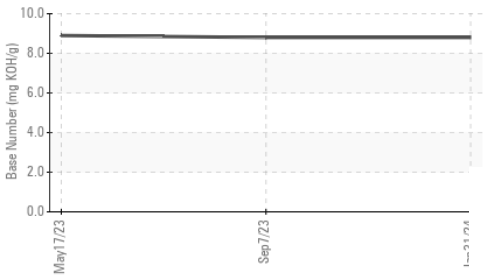
Viscosity @ 100°C



Base Number

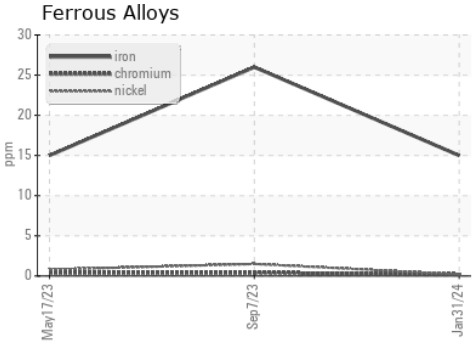


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

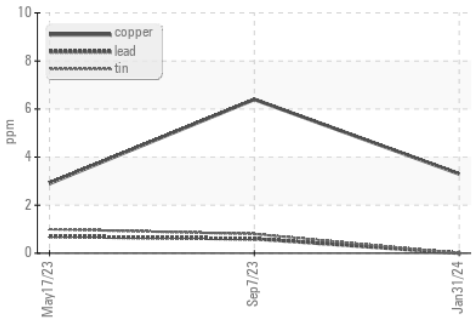
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	▲ **16.7**	11.2	11.3

GRAPHS

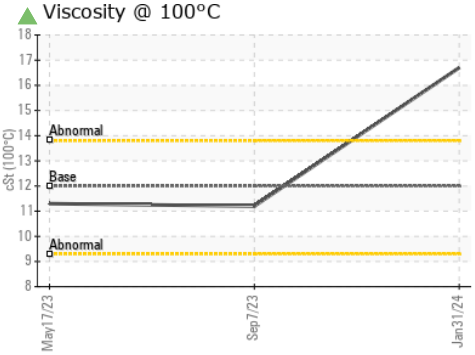
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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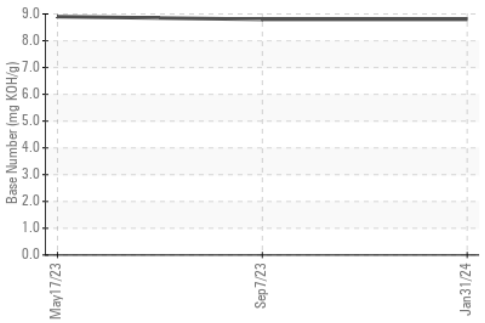

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0116970
Lab Number : 06088476
Unique Number : 10875921
Test Package : FLEET

Received : 14 Feb 2024
Tested : 15 Feb 2024
Diagnosed : 15 Feb 2024 - Don Baldridge

Transervice - Shop 1071 - Supermarket-Dayton
60 A Tower Road
Dayton, NJ
US 08810
Contact: Brian Quinn
bquinn@transervice.com
T:
F:

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.*
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