



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 421059-SW4105
Component
Diesel Engine
Fluid
MOBIL DELVAC ELITE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111327	GFL0111279	GFL0111355
Sample Date		Client Info		31 May 2024	21 Mar 2024	31 Jan 2024
Machine Age	hrs	Client Info		6204	5710	5753
Oil Age	hrs	Client Info		451	0	500
Filter Age	hrs	Client Info		0	0	500
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	4	2	<1
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	5	3
Lead	ppm	ASTM D5185m	>40	<1	<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 no indication of any contamination in the oil.

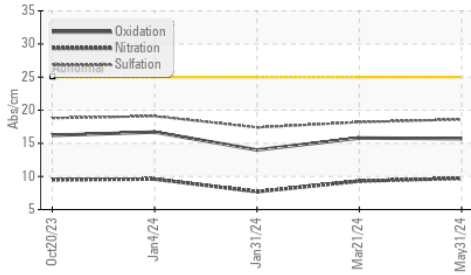
Silicon	ppm	ASTM D5185m	>25	4	6	3
Potassium	ppm	ASTM D5185m	>20	4	9	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.3	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.2	17.4
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

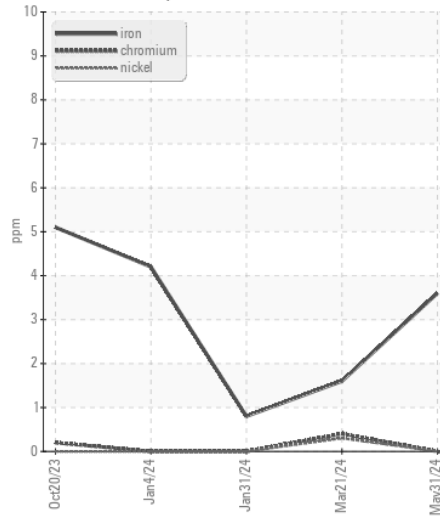
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	3
Boron	ppm	ASTM D5185m		72	95	121
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		122	134	118
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		660	695	616
Calcium	ppm	ASTM D5185m		1318	1297	1129
Phosphorus	ppm	ASTM D5185m		811	762	674
Zinc	ppm	ASTM D5185m		879	879	756
Sulfur	ppm	ASTM D5185m		4096	3428	2892
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	15.8	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	5.7	5.3	6.8
Visc @ 100°C	cSt	ASTM D445	15.2	13.4	12.9	13.1

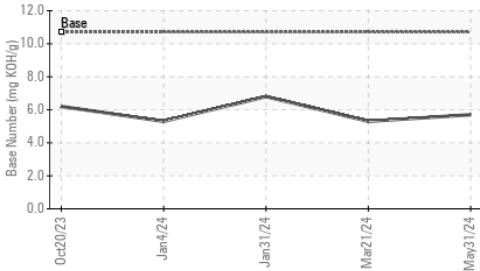
FT-IR (Direct Trend)



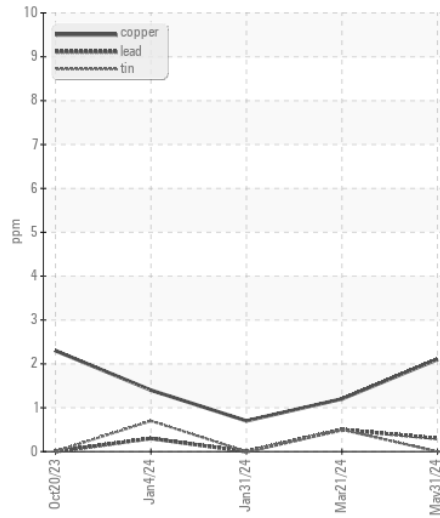
Ferrous Alloys



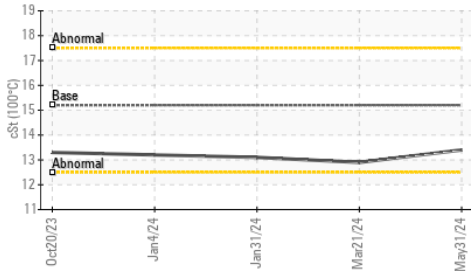
Base Number



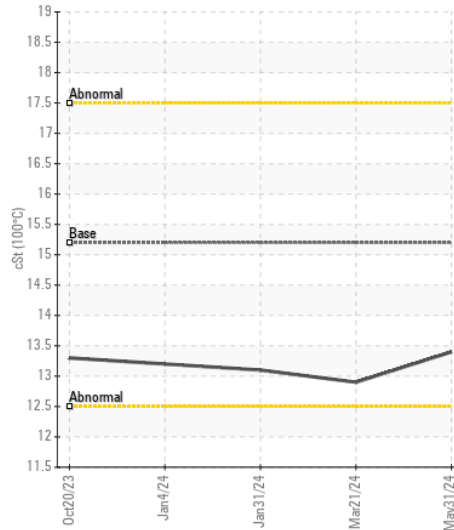
Non-ferrous Metals



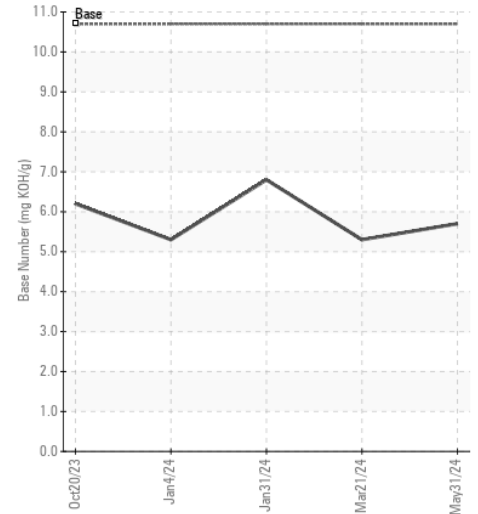
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0111327
 Lab Number : 06231228
 Unique Number : 11114721
 Test Package : FLEET

Received : 09 Jul 2024
 Tested : 10 Jul 2024
 Diagnosed : 10 Jul 2024 - Wes Davis

GFL Environmental - 981 - Port Arthur Hauling
 1000 S Business Park Dr
 Port Arthur, TX
 US 77640
 Contact: MICHAEL KAY
 mkay@gflenv.com
 T: (336)660-9331
 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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)