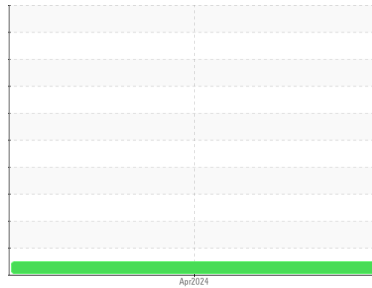




OIL ANALYSIS REPORT

Machine Id
MACK 10070
 Component
Natural Gas Engine
 Fluid
RDL-3647 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			SBP0007395	---	---
Sample Date	Client Info			16 Apr 2024	---	---
Machine Age	hrs	Client Info		7625	---	---
Oil Age	hrs	Client Info		463	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				NORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	20	---	---
Chromium	ppm	ASTM D5185m	>5	<1	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m	>5	2	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>25	4	---	---
Lead	ppm	ASTM D5185m	>40	2	---	---
Copper	ppm	ASTM D5185m	>150	3	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		<1	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	17	---	---
Barium	ppm	ASTM D5185m	5	<1	---	---
Molybdenum	ppm	ASTM D5185m	50	9	---	---
Manganese	ppm	ASTM D5185m	0	2	---	---
Magnesium	ppm	ASTM D5185m	560	694	---	---
Calcium	ppm	ASTM D5185m	1510	1301	---	---
Phosphorus	ppm	ASTM D5185m	780	711	---	---
Zinc	ppm	ASTM D5185m	870	860	---	---
Sulfur	ppm	ASTM D5185m	2040	3131	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	---	---
Sodium	ppm	ASTM D5185m		8	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---

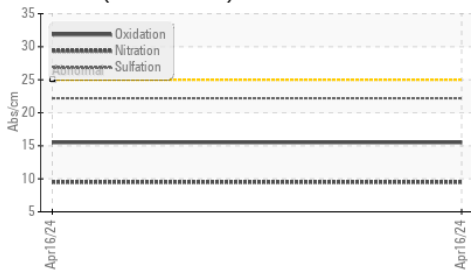
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.1	---	---

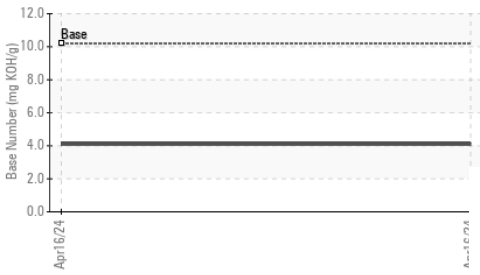


OIL ANALYSIS REPORT

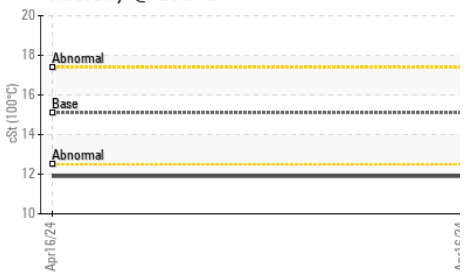
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

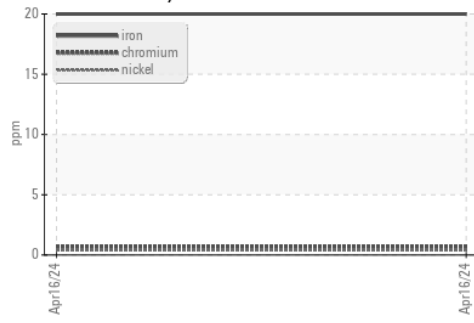


VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

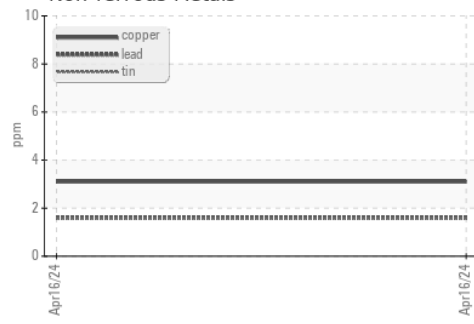
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	11.9	---	---

GRAPHS

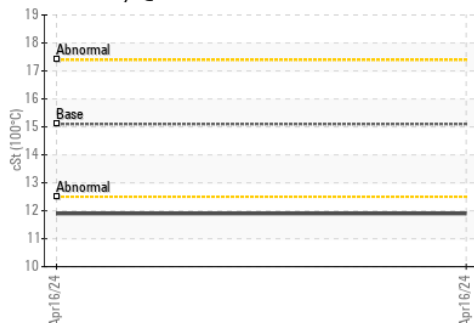
Ferrous Alloys



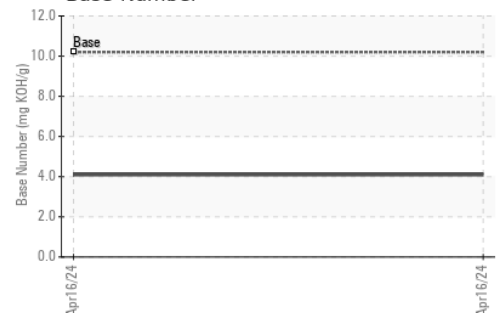
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007395 **Received** : 19 Apr 2024
Lab Number : **06154015** **Tested** : 22 Apr 2024
Unique Number : 10989438 **Diagnosed** : 23 Apr 2024 - Jonathan Hester
Test Package : FLEET

FCC ENVIRONMENTAL SERVICES NEBRASKA LLC
 59902 N 16TH ST
 OMAHA, NE
 US 68110
 Contact: TROY BEAN
 troy.bean@fccenvironmental.com

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)