



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK RO-31
Component
Diesel Engine
Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0875541	---	---
Sample Date		Client Info		14 May 2024	---	---
Machine Age	hrs	Client Info		22568	---	---
Oil Age	hrs	Client Info		1500	---	---
Filter Age	hrs	Client Info		1500	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	6	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	0	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

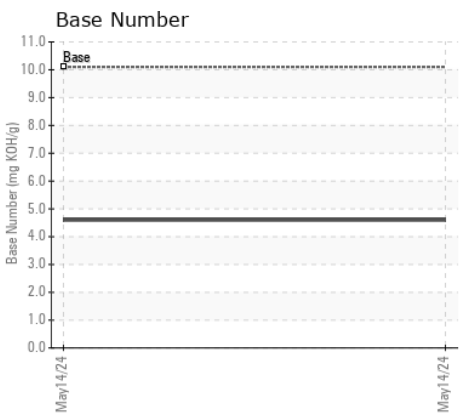
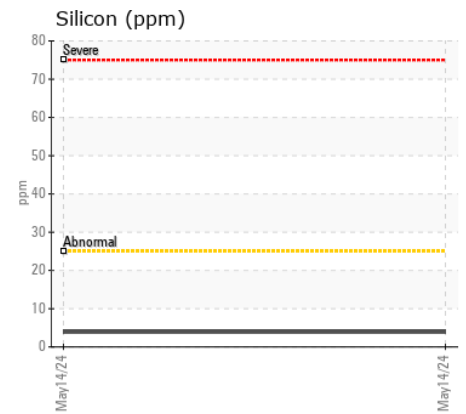
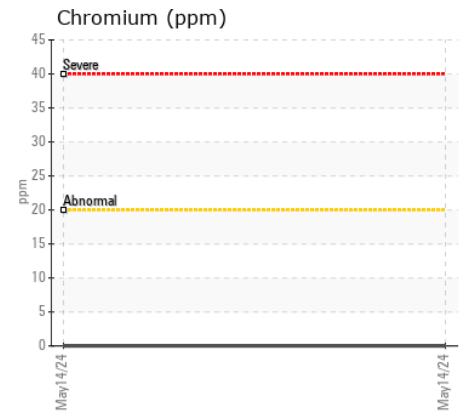
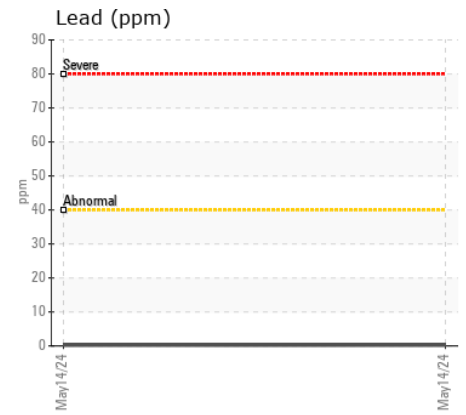
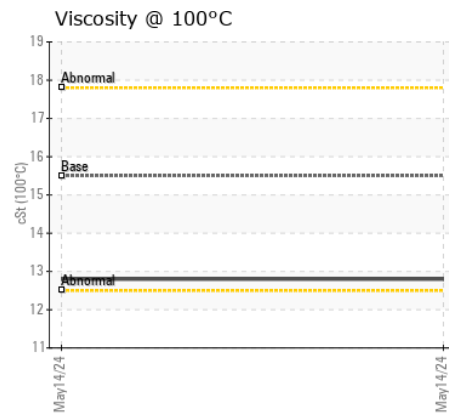
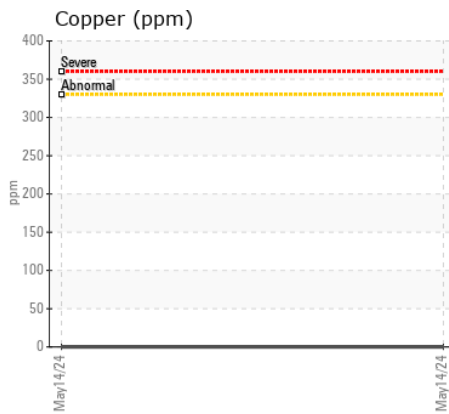
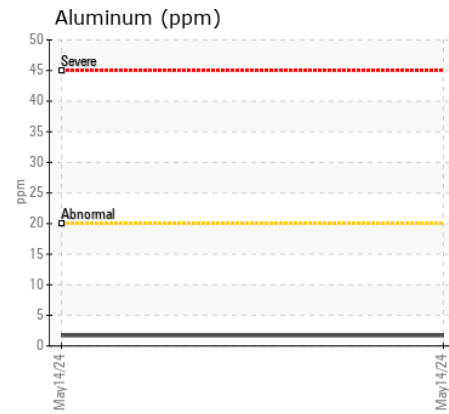
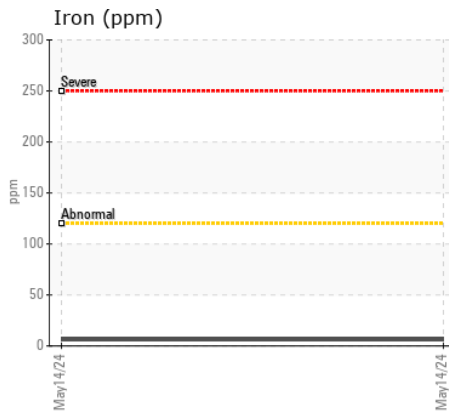
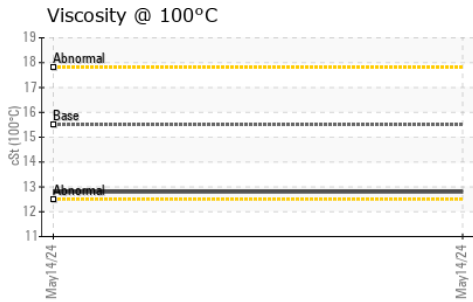
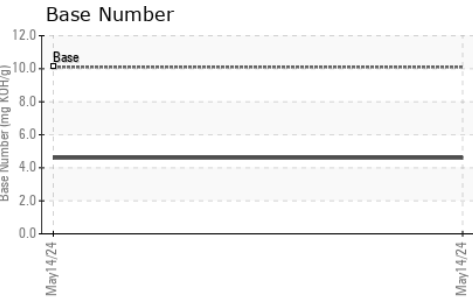
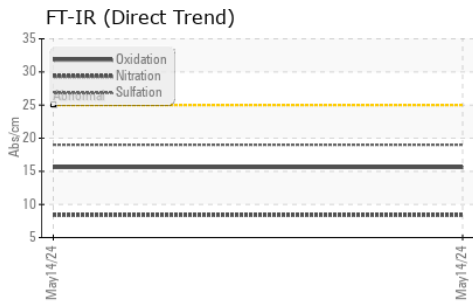
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>4	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	---	---
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	>0.2	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		2	---	---
Boron	ppm	ASTM D5185m		6	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m	66	59	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	1000	875	---	---
Calcium	ppm	ASTM D5185m	1050	1019	---	---
Phosphorus	ppm	ASTM D5185m	1150	1004	---	---
Zinc	ppm	ASTM D5185m	1270	1193	---	---
Sulfur	ppm	ASTM D5185m		3431	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	4.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.5	12.8	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0875541 **Received** : 23 May 2024
Lab Number : 06188917 **Tested** : 24 May 2024
Unique Number : 11045669 **Diagnosed** : 24 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

OAKRIDGE WASTE
 307 WHITE ST
 DANBURY, CT
 US 06810

Contact: CHRIS CONTI
 chris.conti@oakridgewaste.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.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)