



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Rockaway**  
Machine Id  
**MACK 1267**  
Component  
**Diesel Engine**  
Fluid  
**GIBRALTAR 15W/40 SUPER S-3 LX (11)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0840410</b>	WC0774754	---
Sample Date		Client Info		<b>10 Nov 2023</b>	09 Aug 2023	---
Machine Age	hrs	Client Info		<b>4103</b>	3523	---
Oil Age	hrs	Client Info		<b>3523</b>	10	---
Filter Age	hrs	Client Info		<b>3523</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Not Changd	---
Filter Changed		Client Info		<b>Changed</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>8</b>	2	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	<1	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

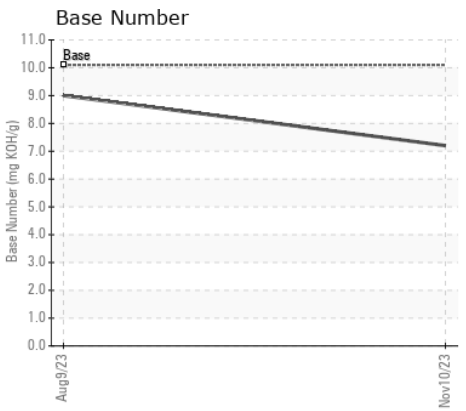
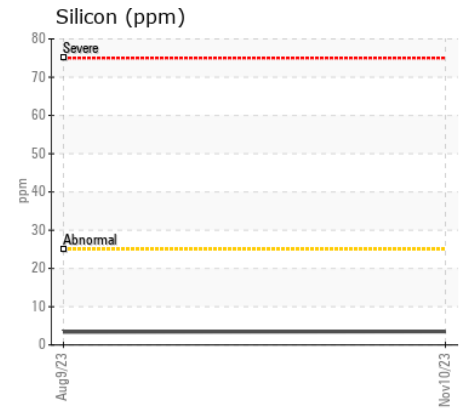
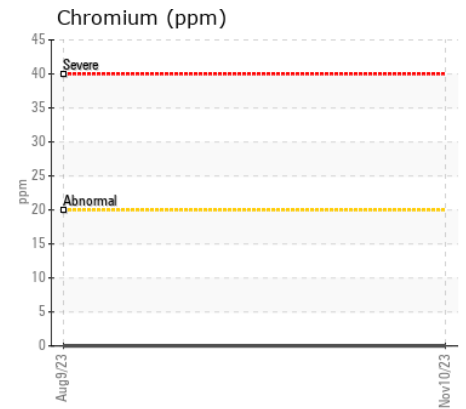
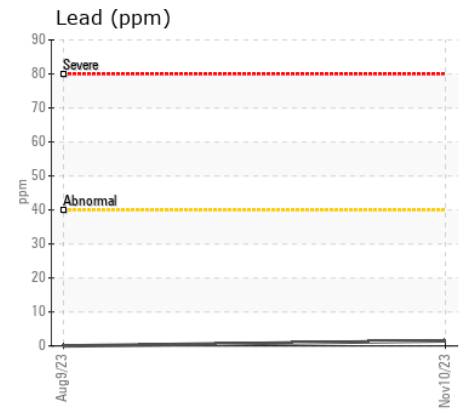
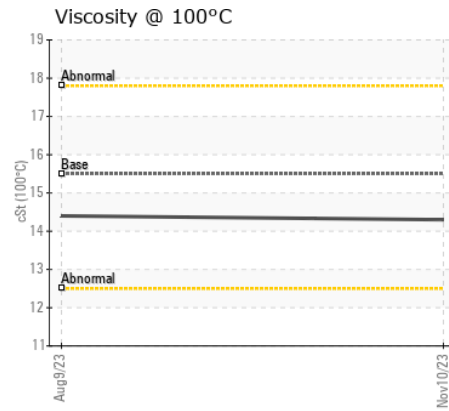
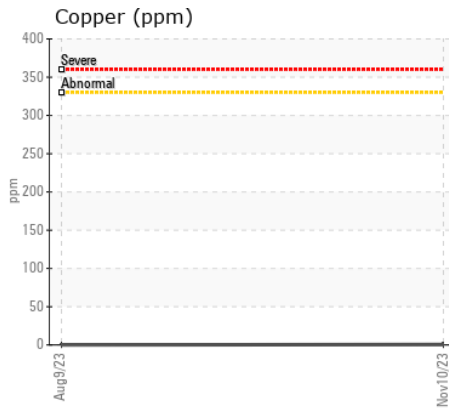
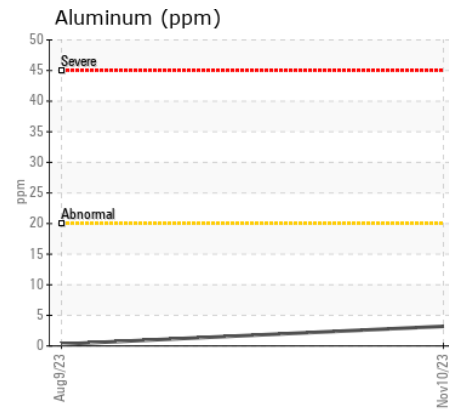
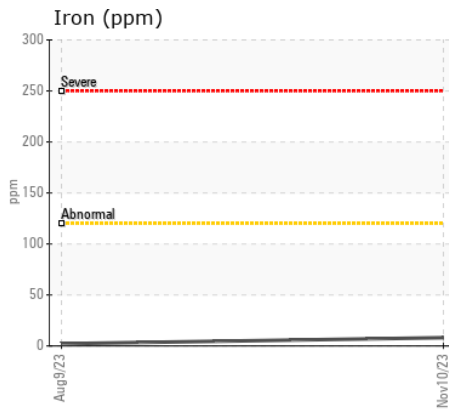
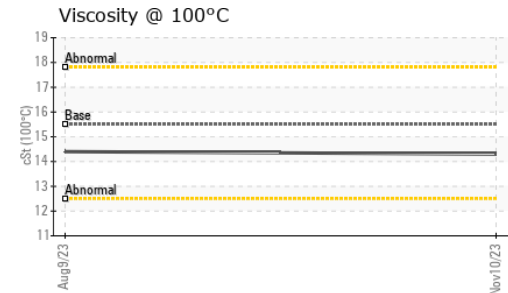
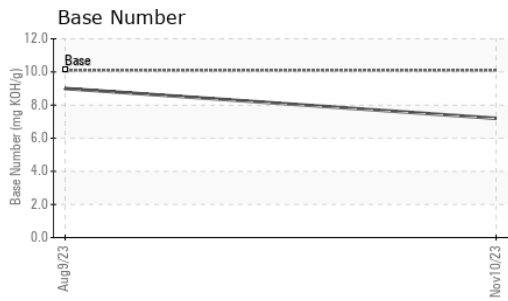
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	<1	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	5.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	16.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	<1	---
Boron	ppm	ASTM D5185m		<b>9</b>	20	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	66	<b>61</b>	64	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m	1000	<b>800</b>	858	---
Calcium	ppm	ASTM D5185m	1050	<b>1124</b>	1319	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1029</b>	1045	---
Zinc	ppm	ASTM D5185m	1270	<b>1213</b>	1254	---
Sulfur	ppm	ASTM D5185m		<b>3058</b>	4003	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	12.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.2</b>	9.0	---
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.3</b>	14.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0840410 **Received** : 31 Jan 2024  
**Lab Number** : 06075594 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10857685 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**INTERSTATE WASTE-ROCKAWAY**  
 311 WEST MAIN STREET, STE 8  
 ROCKAWAY, NJ  
 US 07866  
 Contact: Service Manager

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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F: