



# 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>WC0858457</b>	WC0840410	WC0774754
Sample Date		Client Info		<b>15 Feb 2024</b>	10 Nov 2023	09 Aug 2023
Machine Age	hrs	Client Info		<b>4103</b>	4103	3523
Oil Age	hrs	Client Info		<b>4103</b>	3523	10
Filter Age	hrs	Client Info		<b>4103</b>	3523	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>9</b>	8	2
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

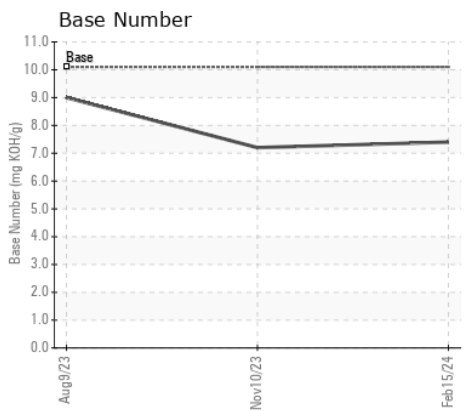
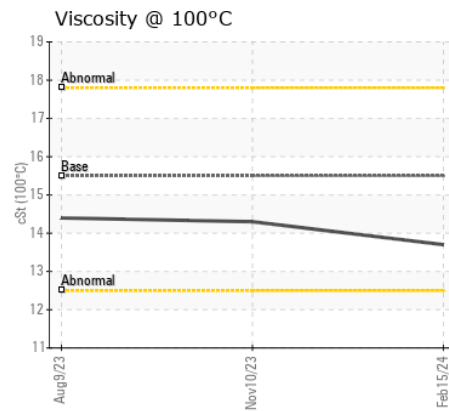
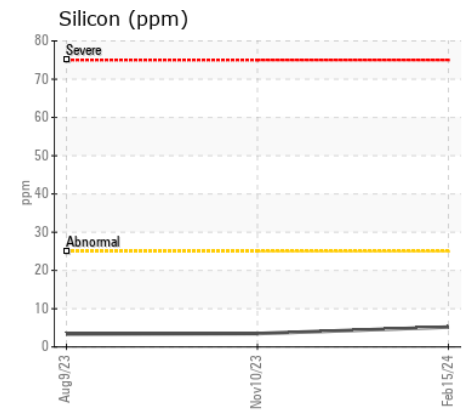
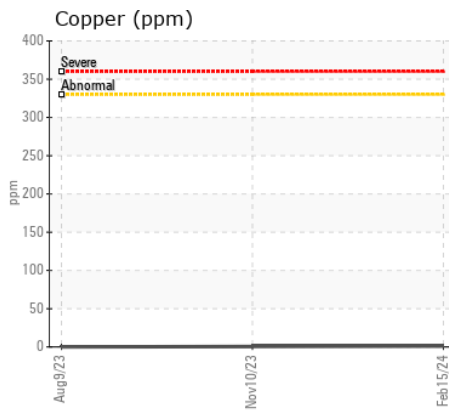
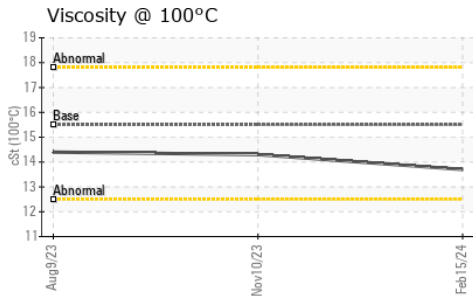
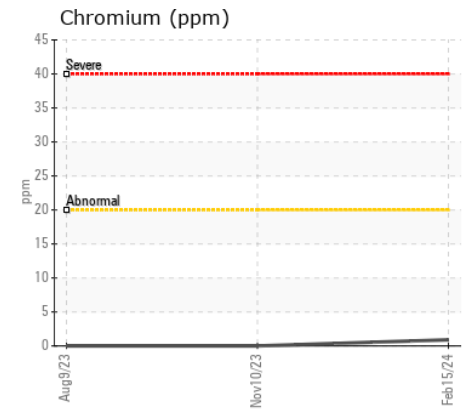
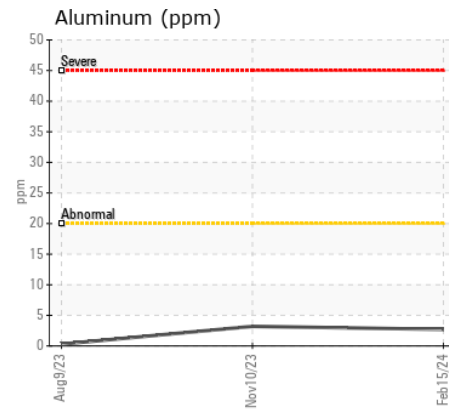
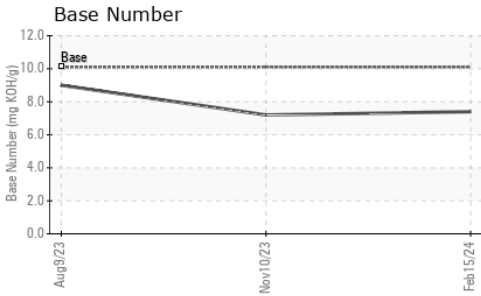
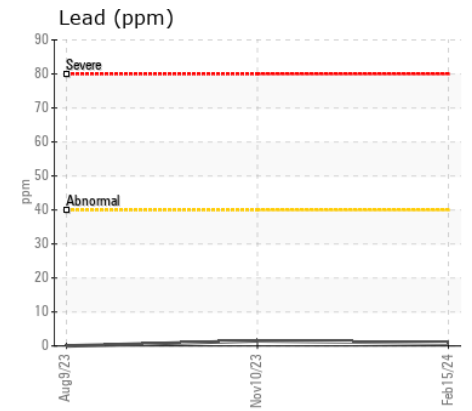
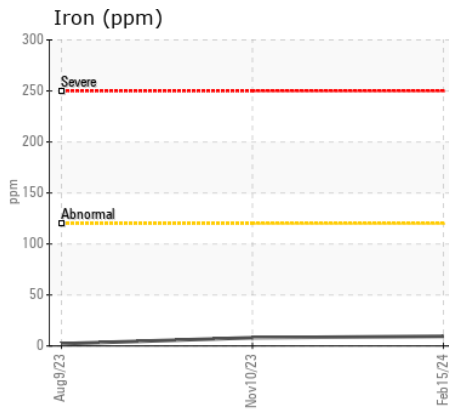
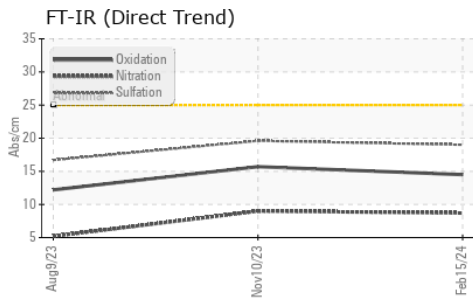
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	8	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.0	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	19.6	16.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	2	<1
Boron	ppm	ASTM D5185m		<b>6</b>	9	20
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	66	<b>57</b>	61	64
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1000	<b>816</b>	800	858
Calcium	ppm	ASTM D5185m	1050	<b>1159</b>	1124	1319
Phosphorus	ppm	ASTM D5185m	1150	<b>938</b>	1029	1045
Zinc	ppm	ASTM D5185m	1270	<b>1185</b>	1213	1254
Sulfur	ppm	ASTM D5185m		<b>3106</b>	3058	4003
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	15.7	12.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.4</b>	7.2	9.0
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.7</b>	14.3	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0858457 **Received** : 28 Jun 2024  
**Lab Number** : 06223148 **Tested** : 28 Jun 2024  
**Unique Number** : 11101345 **Diagnosed** : 28 Jun 2024 - 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: