



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



Machine Id  
**MACK V111**  
Component  
**Rear Differential**  
Fluid  
**GEAR OIL SAE 80W140 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0178537</b>	JR0178289	JR0144653
Sample Date		Client Info		<b>28 Dec 2023</b>	20 Sep 2023	15 Jun 2023
Machine Age	mls	Client Info		<b>113606</b>	0	101085
Oil Age	mls	Client Info		<b>5780</b>	29578	39581
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>1100	<b>38</b>	40	36
Iron	ppm	ASTM D5185m	>1200	<b>127</b>	120	108
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

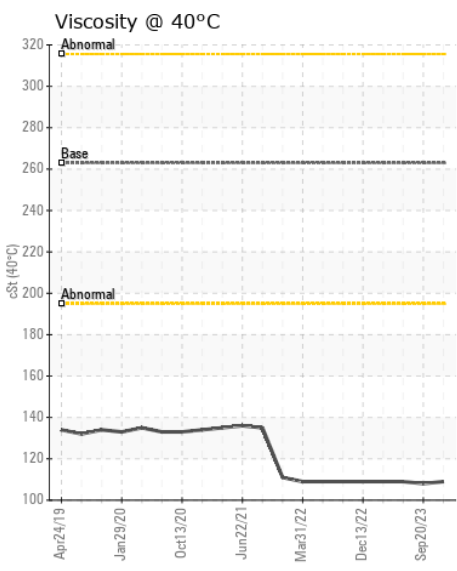
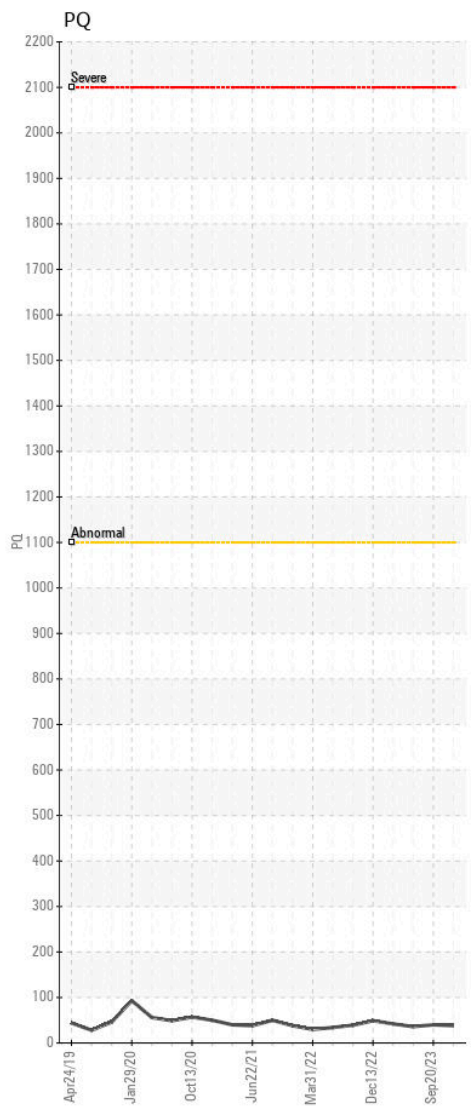
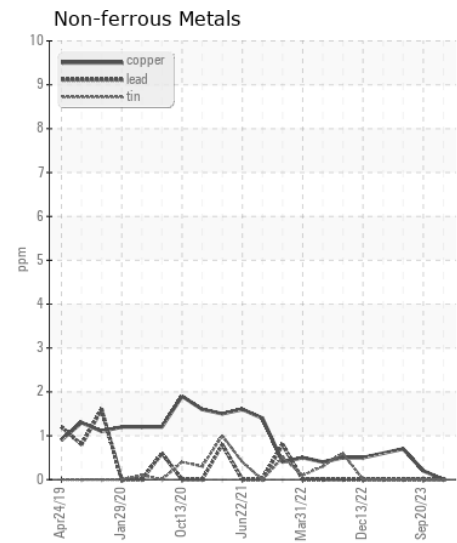
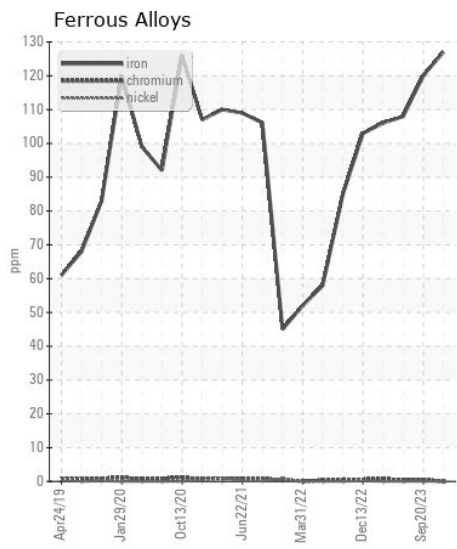
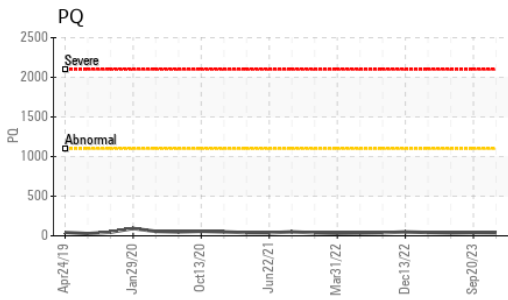
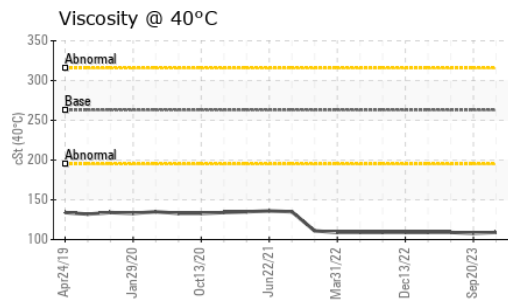
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>230	<b>8</b>	9	10
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
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	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>2</b>	2	<1
Boron	ppm	ASTM D5185m	400	<b>293</b>	361	344
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>2</b>	3	3
Magnesium	ppm	ASTM D5185m	12	<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185m	150	<b>0</b>	<1	6
Phosphorus	ppm	ASTM D5185m	1650	<b>1367</b>	1337	1311
Zinc	ppm	ASTM D5185m	125	<b>0</b>	6	7
Sulfur	ppm	ASTM D5185m	22500	<b>24101</b>	27724	27186
Visc @ 40°C	cSt	ASTM D445	263	<b>109</b>	108	109



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0178537 **Received** : 08 Jan 2024  
**Lab Number** : 06054224 **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10820173 **Diagnostician** : Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

**MATTHEWS CONSTRUCTION**  
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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)