



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id  
**MACK GR643 190 (S/N 210605622)**  
Component  
**Diesel Engine**  
Fluid  
**UNITED OIL DURALENE (--- GAL)**

## RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0027603</b>	DC0016267	DC0013557
Sample Date		Client Info		<b>10 Apr 2024</b>	05 Aug 2022	07 Jan 2022
Machine Age	hrs	Client Info		<b>7075</b>	4179	2705
Oil Age	hrs	Client Info		<b>0</b>	2705	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>40</b>	52	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	6	4
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

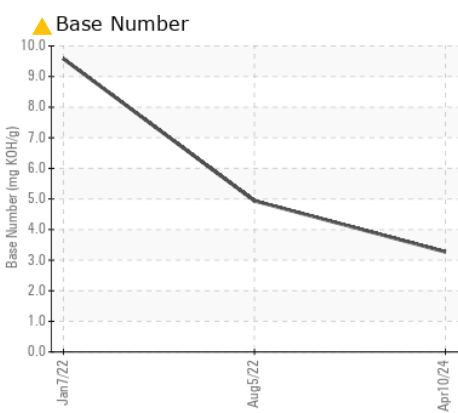
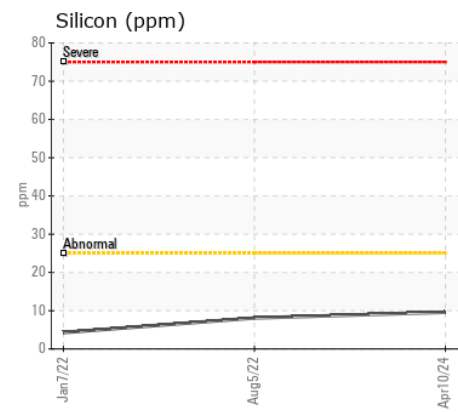
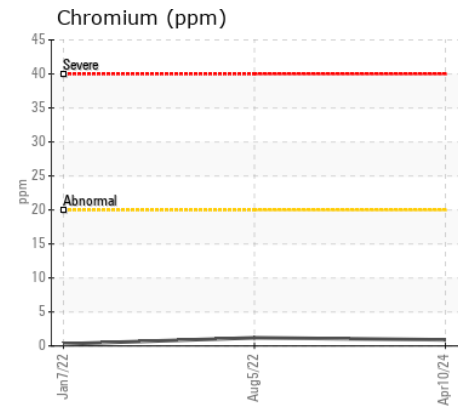
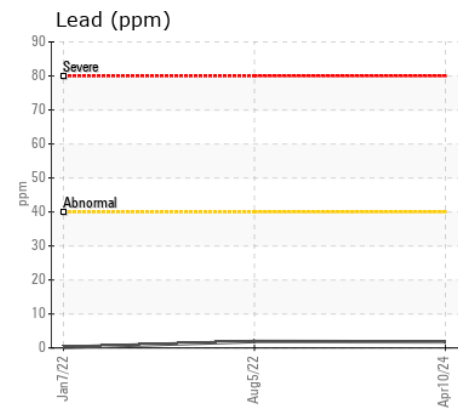
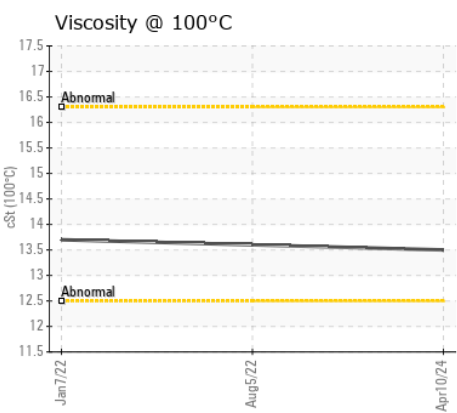
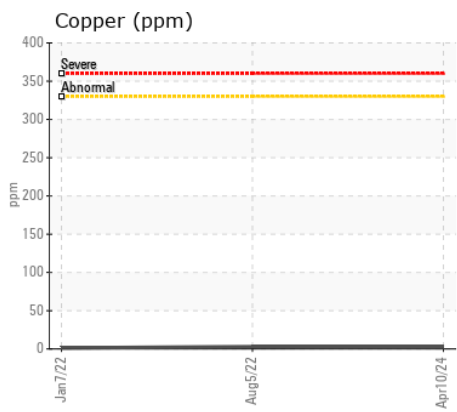
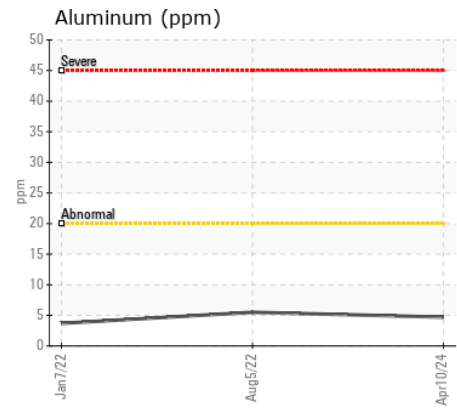
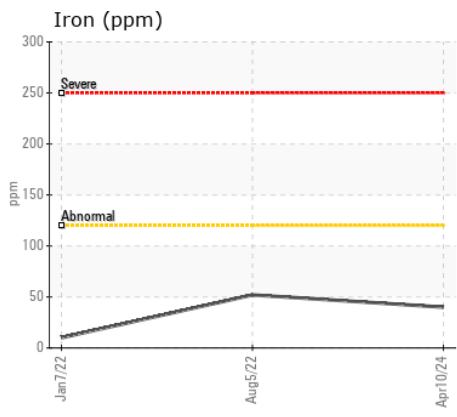
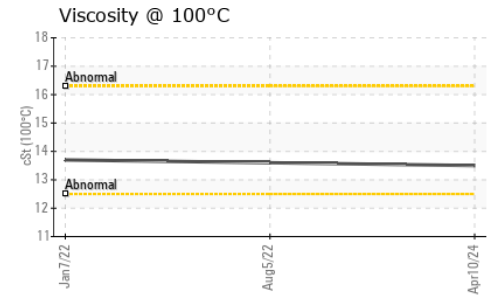
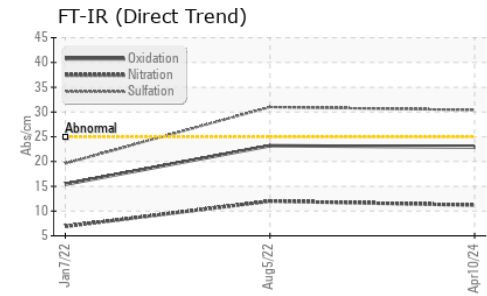
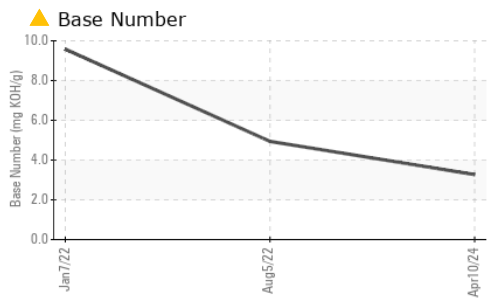
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	8	4
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	10	4
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>0.8</b>	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.2</b>	12.0	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.4</b>	31.0	19.6
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	8	0
Boron	ppm	ASTM D5185m		<b>0</b>	52	13
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	34	58
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>48</b>	214	881
Calcium	ppm	ASTM D5185m		<b>2289</b>	2210	1088
Phosphorus	ppm	ASTM D5185m		<b>888</b>	891	996
Zinc	ppm	ASTM D5185m		<b>1146</b>	1205	1170
Sulfur	ppm	ASTM D5185m		<b>3934</b>	3462	2718
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.9</b>	23.2	15.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>▲ 3.27</b>	4.94	9.58
Visc @ 100°C	cSt	ASTM D445		<b>13.5</b>	13.6	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0027603  
**Lab Number** : 06152187  
**Unique Number** : 10982265  
**Test Package** : MOB 2  
**Received** : 17 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Don Baldrige

**BLANCHET CONCRETE PUMPING**  
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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)