



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**MACK 1209**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0917323</b>	WC0878832	WC0822347
Sample Date		Client Info		<b>26 Apr 2024</b>	06 Jan 2024	29 Jun 2023
Machine Age	mls	Client Info		<b>543784</b>	543299	341626
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>0</b>	2	2
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

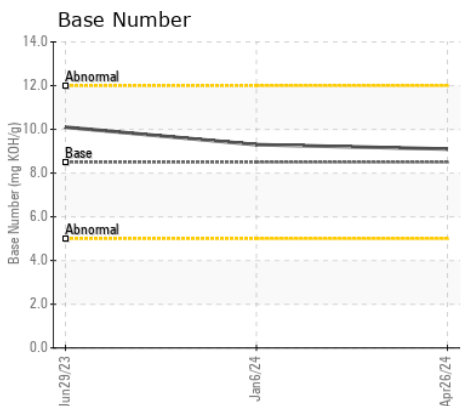
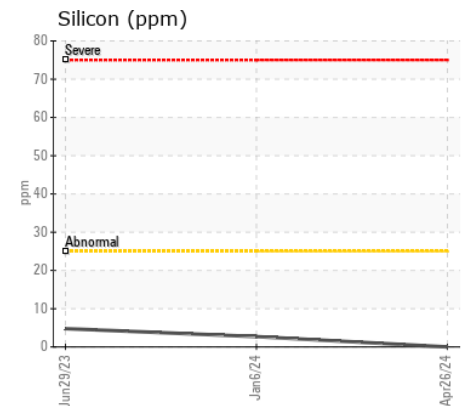
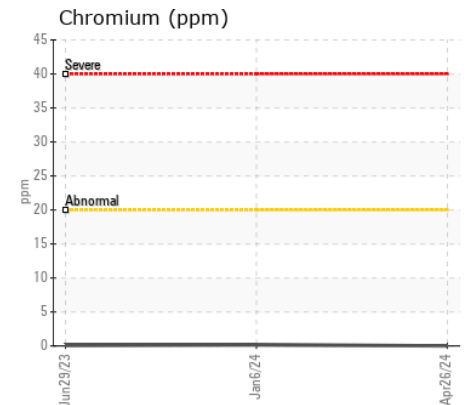
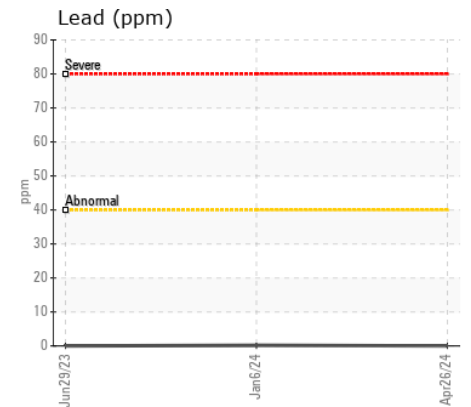
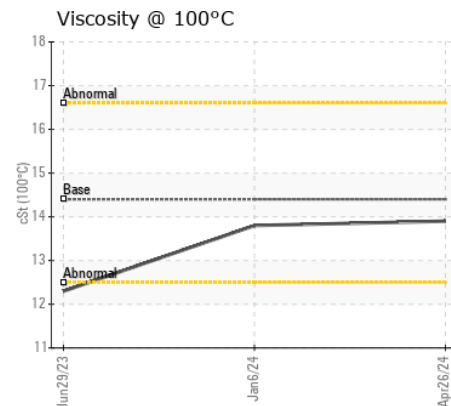
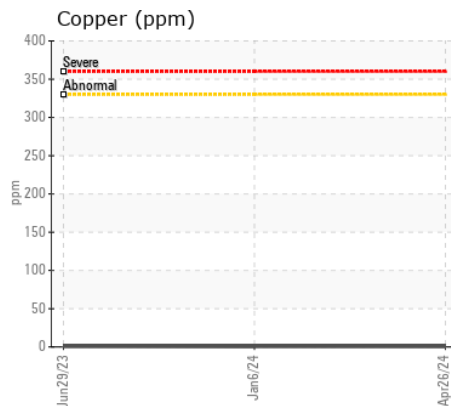
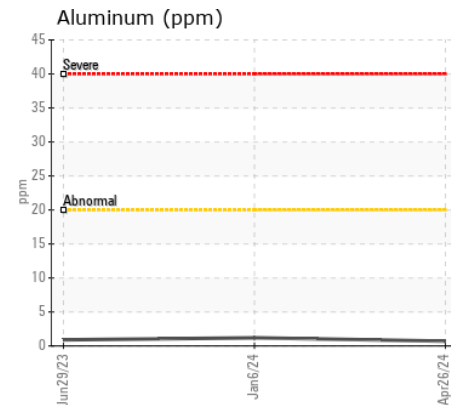
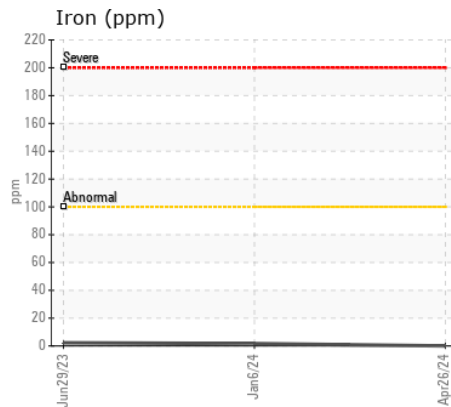
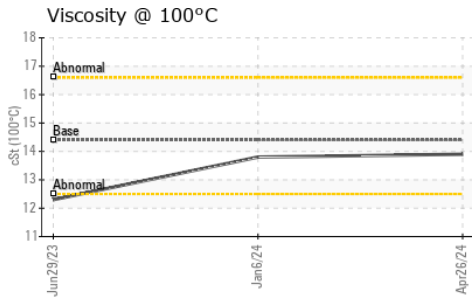
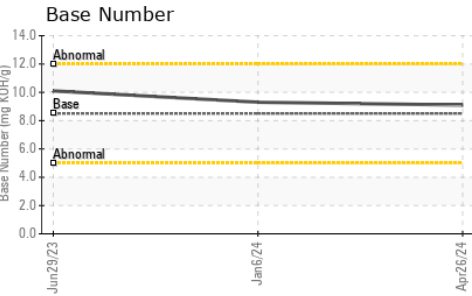
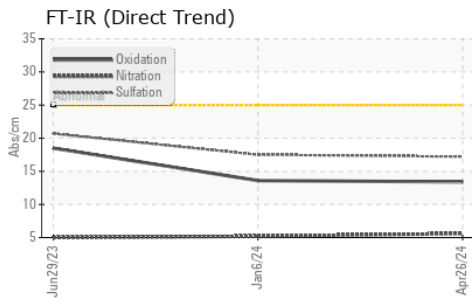
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>0</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	0.5
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.6</b>	5.2	5.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.2</b>	17.5	20.7
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	>158	<b>1</b>	2	<1
Boron	ppm	ASTM D5185m	250	<b>0</b>	8	73
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>57</b>	53	52
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>981</b>	947	461
Calcium	ppm	ASTM D5185m	3000	<b>1095</b>	1043	1490
Phosphorus	ppm	ASTM D5185m	1150	<b>1074</b>	1005	709
Zinc	ppm	ASTM D5185m	1350	<b>1262</b>	1162	832
Sulfur	ppm	ASTM D5185m	4250	<b>3743</b>	3051	2394
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.4</b>	13.6	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.1</b>	9.3	10.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.9</b>	13.8	12.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917323 **Received** : 03 Jun 2024  
**Lab Number** : 06197257 **Tested** : 03 Jun 2024  
**Unique Number** : 11059380 **Diagnosed** : 03 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: BRYAN VANNIMAN  
 bryanvanniman@fayblock.com  
 T: (800)326-9198  
 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)