



# OIL ANALYSIS REPORT

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

Machine Id  
**1424**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 1 5W30 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0827822</b>	WC0827681	WC0827708
Sample Date		Client Info		<b>24 Feb 2024</b>	24 Nov 2023	19 Aug 2023
Machine Age	mls	Client Info		<b>124369</b>	115213	109822
Oil Age	mls	Client Info		<b>0</b>	0	5559
Filter Age	mls	Client Info		<b>0</b>	0	5559
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	7	20
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>11</b>	10	12
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

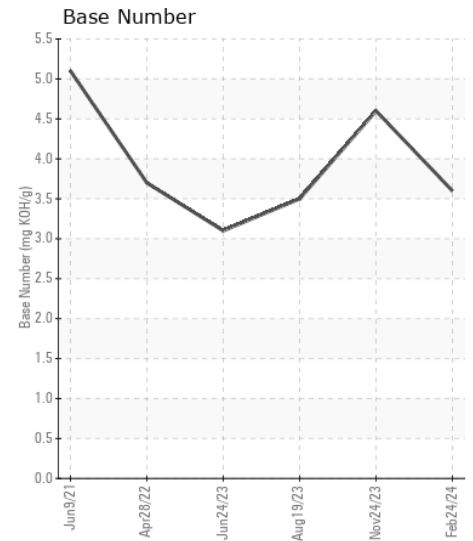
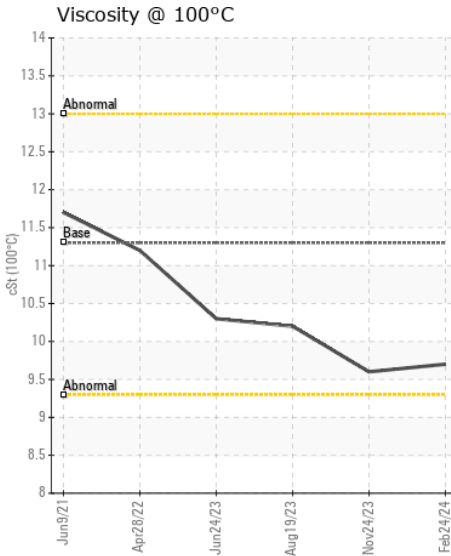
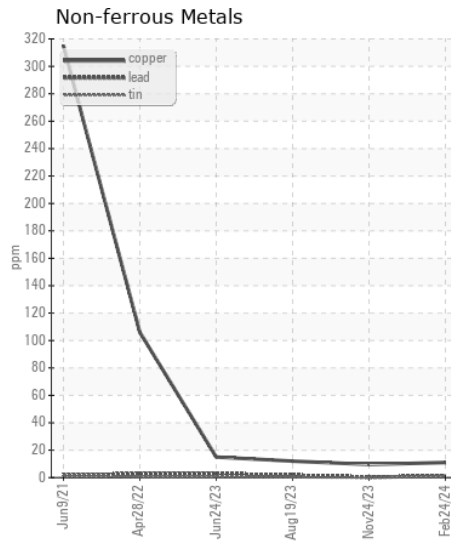
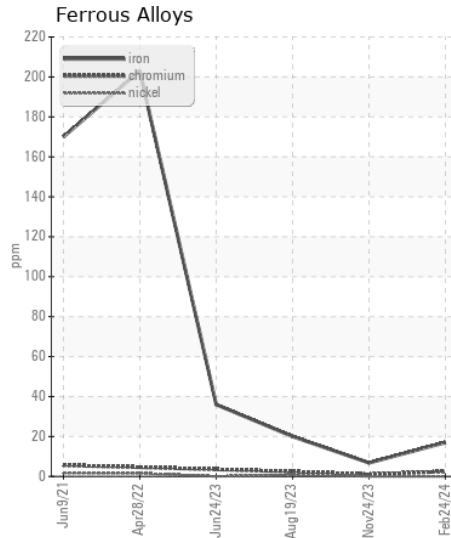
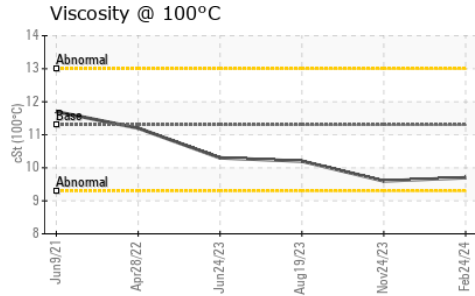
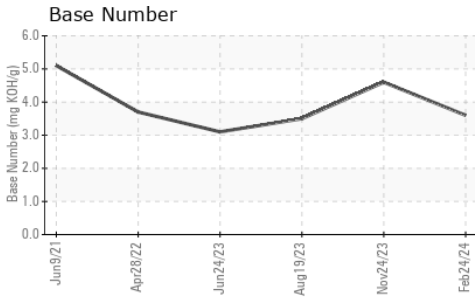
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>21</b>	▲ 39	11
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	3
Fuel		WC Method	>5	<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	>3	<b>0.1</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.7</b>	9.4	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.0</b>	20.1	21.2
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>4</b>	2	6
Boron	ppm	ASTM D5185m	94	<b>25</b>	58	32
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>66</b>	67	89
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1388	<b>498</b>	552	612
Calcium	ppm	ASTM D5185m	820	<b>1064</b>	1190	731
Phosphorus	ppm	ASTM D5185m	720	<b>646</b>	730	604
Zinc	ppm	ASTM D5185m	780	<b>746</b>	831	758
Sulfur	ppm	ASTM D5185m	2240	<b>2534</b>	2654	1850
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.9</b>	14.0	19.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>3.6</b>	4.6	3.5
Visc @ 100°C	cSt	ASTM D445	11.3	<b>9.7</b>	9.6	10.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0827822  
**Lab Number** : 06104974  
**Unique Number** : 10903204  
**Test Package** : FLEET

**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**CARCO TRANSPORTATION**  
 415 S WESTERN AVENUE  
 OKLAHOMA CITY, OK  
 US 73109  
 Contact: VICTOR STACHONIAK  
 victors@carcotrans.com

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: