



# OIL ANALYSIS REPORT

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

Machine Id  
**1426**  
 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>WC0827800</b>	WC0827774	WC0827759
Sample Date		Client Info		<b>04 May 2024</b>	01 Feb 2024	27 Sep 2023
Machine Age	mls	Client Info		<b>99357</b>	93784	87313
Oil Age	mls	Client Info		<b>0</b>	0	7780
Filter Age	mls	Client Info		<b>0</b>	0	7780
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>20</b>	29	32
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	5	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>22</b>	26	31
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

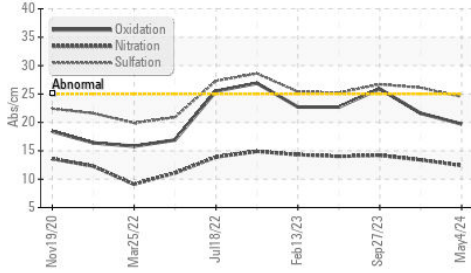
Silicon	ppm	ASTM D5185m	>25	<b>10</b>	10	9
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.4</b>	13.4	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.5</b>	26.1	26.7
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

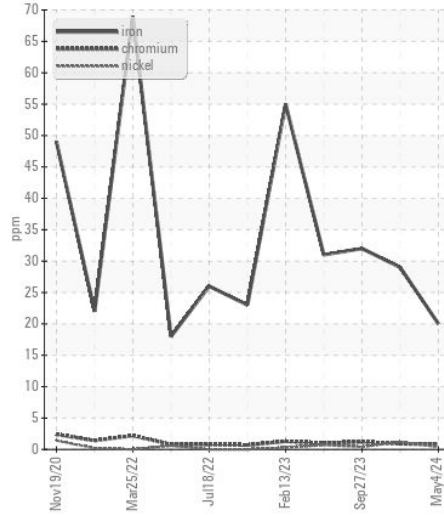
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>7</b>	5	5
Boron	ppm	ASTM D5185m	94	<b>29</b>	24	33
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>72</b>	84	96
Manganese	ppm	ASTM D5185m		<b>0</b>	2	1
Magnesium	ppm	ASTM D5185m	1388	<b>481</b>	568	694
Calcium	ppm	ASTM D5185m	820	<b>1034</b>	855	696
Phosphorus	ppm	ASTM D5185m	720	<b>624</b>	650	614
Zinc	ppm	ASTM D5185m	780	<b>746</b>	766	793
Sulfur	ppm	ASTM D5185m	2240	<b>2440</b>	2187	1857
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.7</b>	21.6	25.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.5</b>	3.7	4.5
Visc @ 100°C	cSt	ASTM D445	11.3	<b>10.5</b>	10.9	10.9

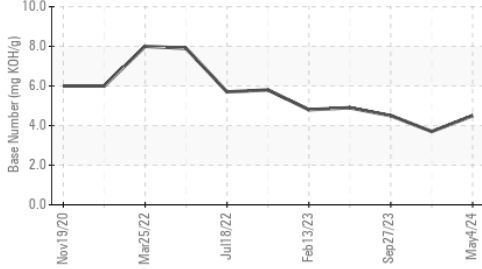
**FT-IR (Direct Trend)**



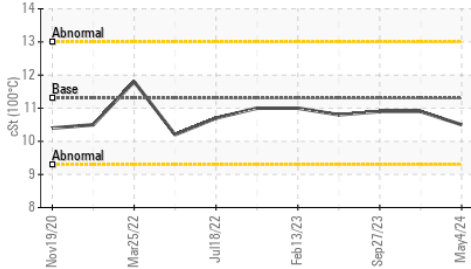
**Ferrous Alloys**



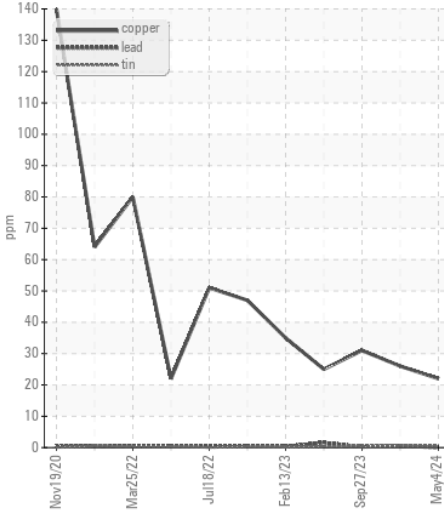
**Base Number**



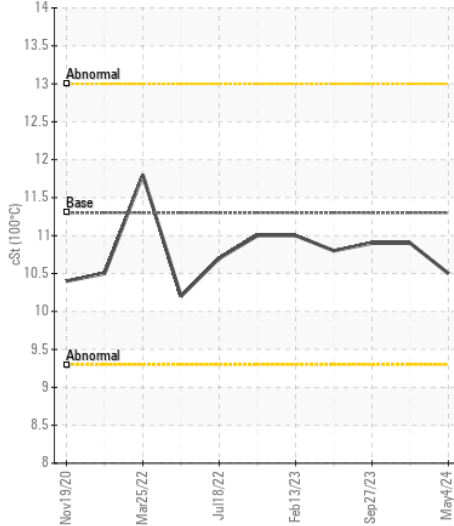
**Viscosity @ 100°C**



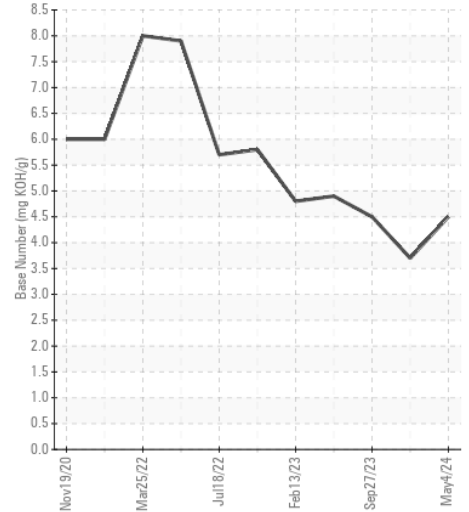
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0827800  
**Lab Number** : 06178562  
**Unique Number** : 11029888  
**Test Package** : FLEET  
**Received** : 14 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 15 May 2024 - Wes Davis

**CARCO TRANSPORTATION**  
 415 S WESTERN AVENUE  
 OKLAHOMA CITY, OK  
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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)