



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**3235**  
Component  
**Diesel Engine**  
Fluid  
**SHELL 10W30 (--- GAL)**

### 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>WC0916505</b>	WC0878544	WC0854046
Sample Date		Client Info		<b>06 Apr 2024</b>	06 Jan 2024	07 Oct 2023
Machine Age	mls	Client Info		<b>0</b>	345200	327185
Oil Age	mls	Client Info		<b>20025</b>	18018	21708
Filter Age	mls	Client Info		<b>20025</b>	18018	21708
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>10</b>	6	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	2
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	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

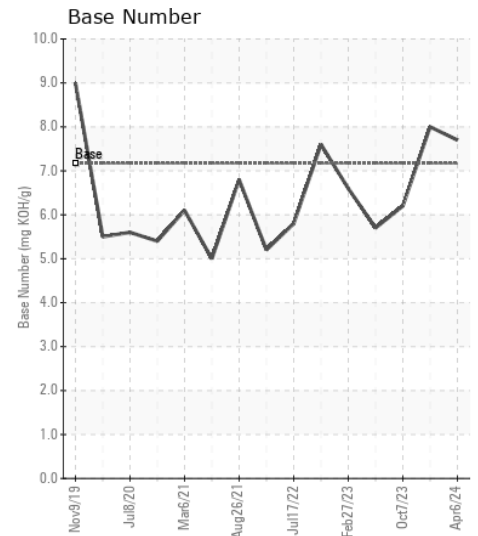
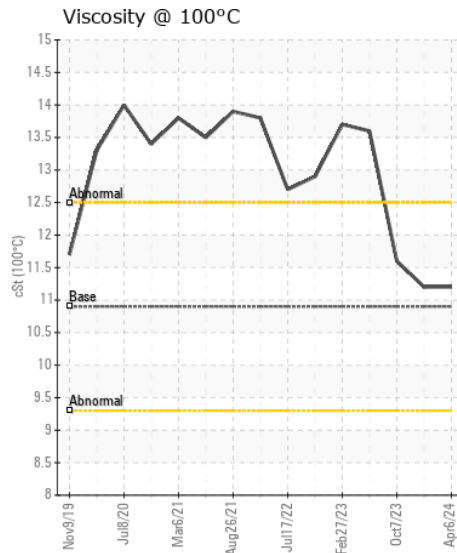
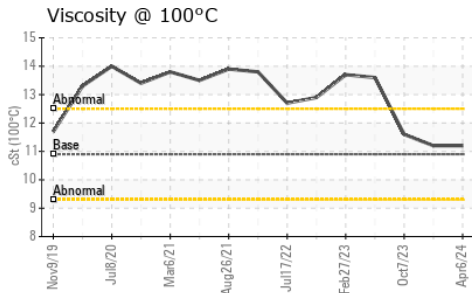
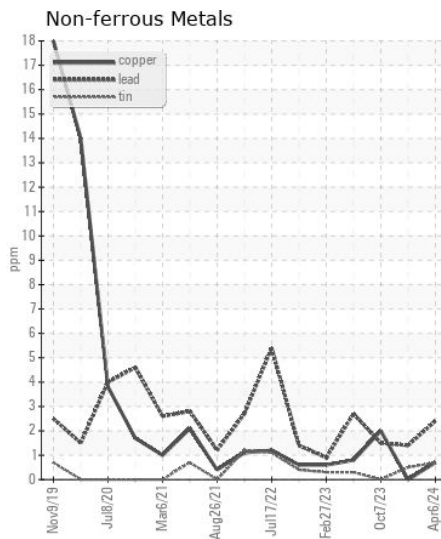
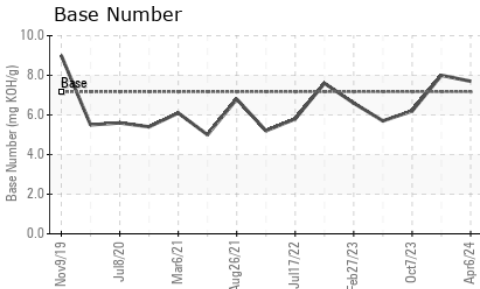
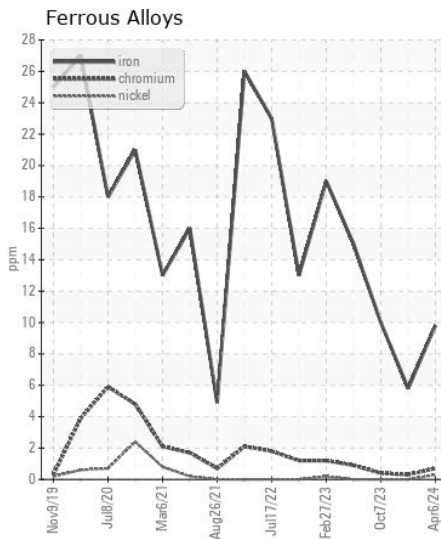
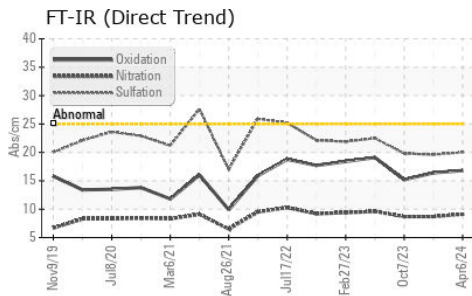
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	6
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>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	8.7	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	19.6	19.8
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>0</b>	<1	2
Boron	ppm	ASTM D5185m		<b>0</b>	2	2
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>65</b>	58	46
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	470	<b>999</b>	932	643
Calcium	ppm	ASTM D5185m	1150	<b>1097</b>	1051	1447
Phosphorus	ppm	ASTM D5185m	94	<b>1118</b>	1098	950
Zinc	ppm	ASTM D5185m	1030	<b>1290</b>	1266	1209
Sulfur	ppm	ASTM D5185m		<b>3305</b>	3062	3021
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	16.4	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	7.17	<b>7.7</b>	8.0	6.2
Visc @ 100°C	cSt	ASTM D445	10.90	<b>11.2</b>	11.2	11.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0916505  
**Lab Number** : 06155163  
**Unique Number** : 10990586  
**Test Package** : FLEET

**Received** : 19 Apr 2024  
**Tested** : 22 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Wes Davis

**CARCO TRANSPORTATION**  
 3403 EAST ROOSEVELT ROAD  
 LITTLE ROCK, AR  
 US 72206  
 Contact: DENNIS CATES  
 denniscales@carcotrans.com  
 T: (800)967-0777  
 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)