



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**107**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- QTS)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0719778</b>	WC0537591	WCM1383916
Sample Date		Client Info		<b>04 Feb 2024</b>	04 May 2022	16 Jul 2021
Machine Age	yrs	Client Info		<b>0</b>	55736	48709
Oil Age	yrs	Client Info		<b>1</b>	0	0
Filter Age	yrs	Client Info		<b>1</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>▲ 141</b>	42	64
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	9	11
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	3
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

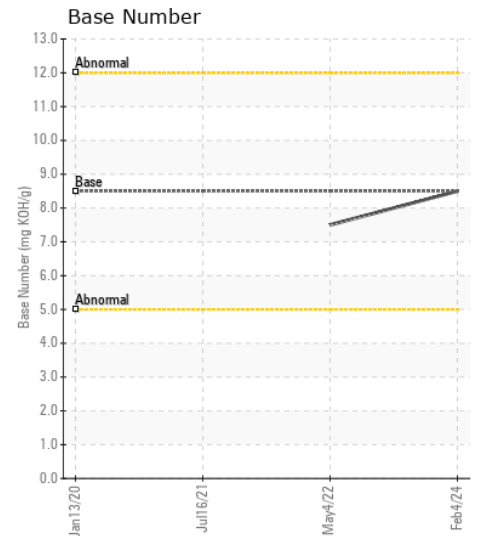
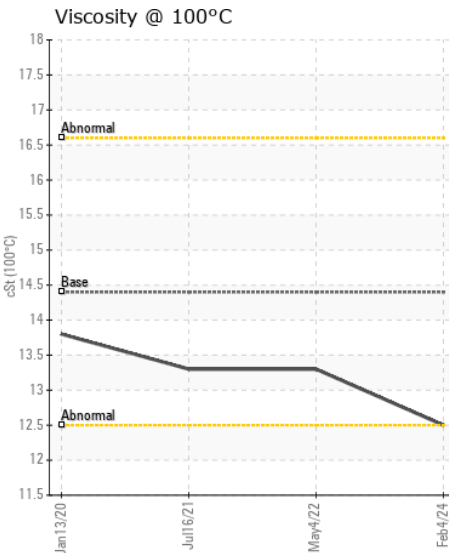
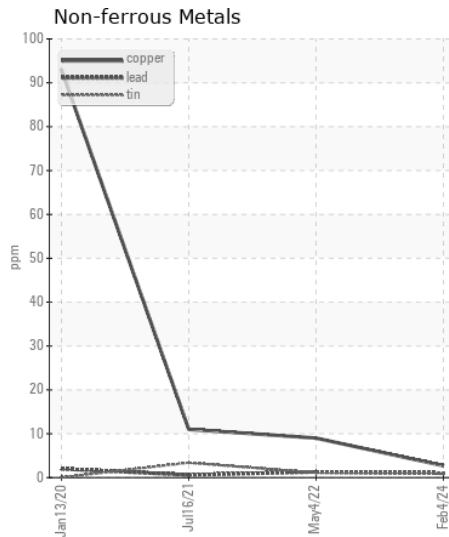
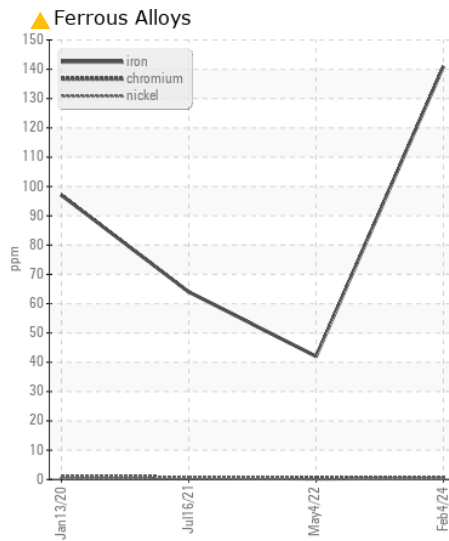
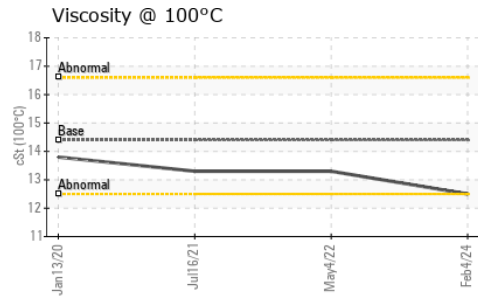
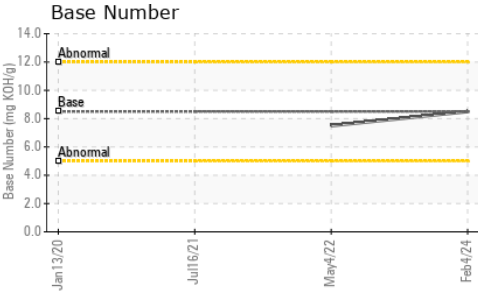
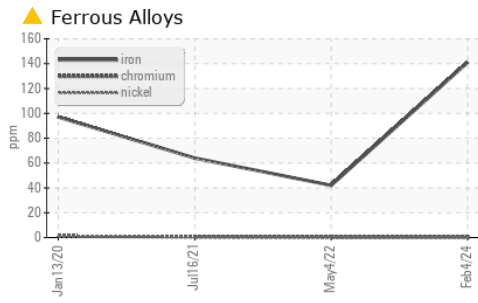
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	2
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>0.6</b>	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	10.3	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	20.7	21
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	>216	<b>2</b>	7	5
Boron	ppm	ASTM D5185m	250	<b>5</b>	11	2
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>51</b>	8	1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>801</b>	15	10
Calcium	ppm	ASTM D5185m	3000	<b>1346</b>	2373	2470
Phosphorus	ppm	ASTM D5185m	1150	<b>1063</b>	897	932
Zinc	ppm	ASTM D5185m	1350	<b>1261</b>	1071	1084
Sulfur	ppm	ASTM D5185m	4250	<b>3314</b>	3063	3240
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	12.7	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.5</b>	7.5	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.5</b>	13.3	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0719778  
**Lab Number** : 06087945  
**Unique Number** : 10875390  
**Test Package** : FLEET

**Received** : 13 Feb 2024  
**Tested** : 14 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Don Baldrige

**ALMSTEAD TREE & SHRUB CARE CO**  
 58 BEECHWOOD AVE  
 NEW ROCHELLE, NY  
 US 10801  
 Contact:

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)

T:  
F: