



# OIL ANALYSIS REPORT

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

Machine Id  
**321**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- QTS)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0719752</b>	WC0719775	WC0537537
Sample Date		Client Info		<b>14 Dec 2023</b>	28 Apr 2023	23 May 2022
Machine Age	mls	Client Info		<b>155311</b>	145352	136616
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>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	MARGINAL

## WEAR

Piston and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>▲ 140</b>	65	31
Chromium	ppm	ASTM D5185m	>20	<b>2</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>▲ 17</b>	7	4
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>4</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

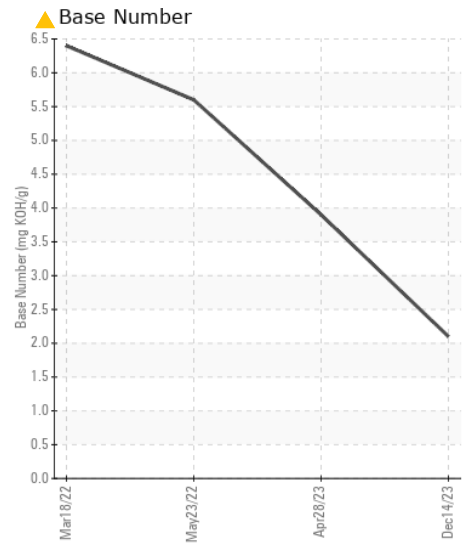
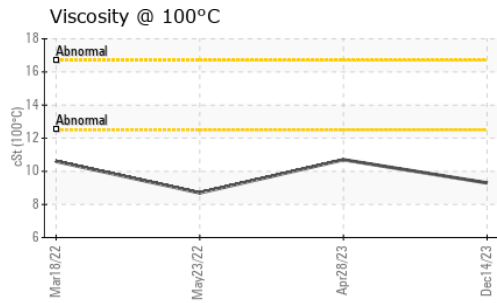
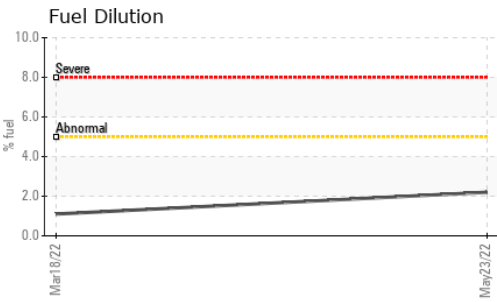
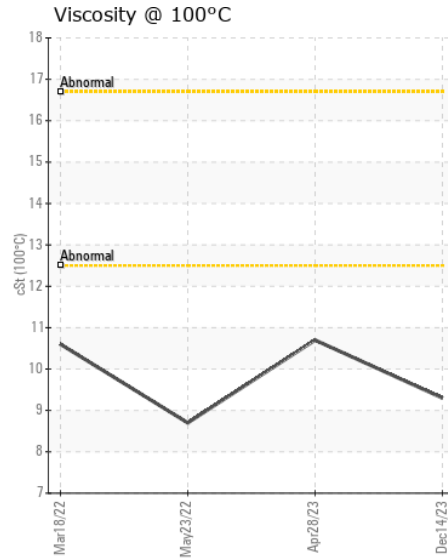
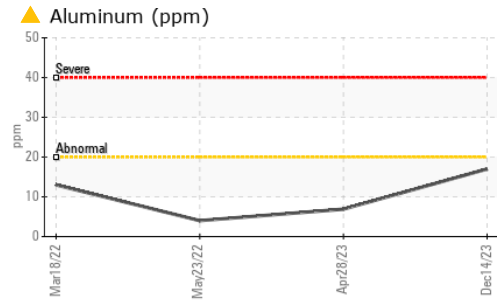
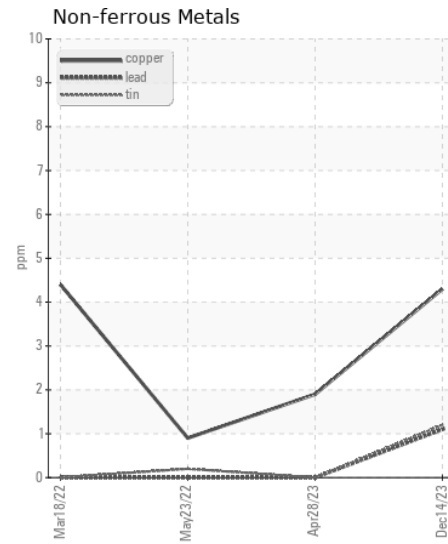
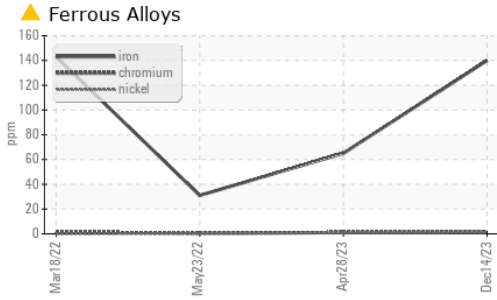
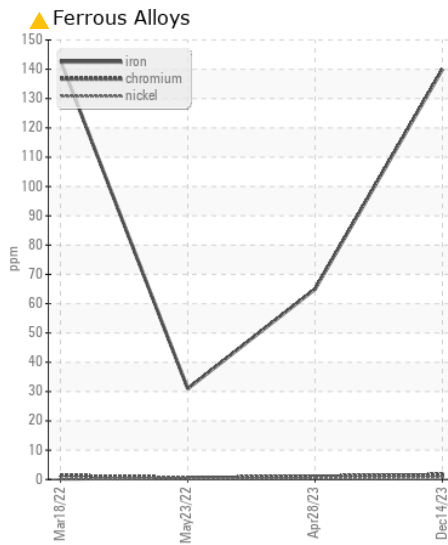
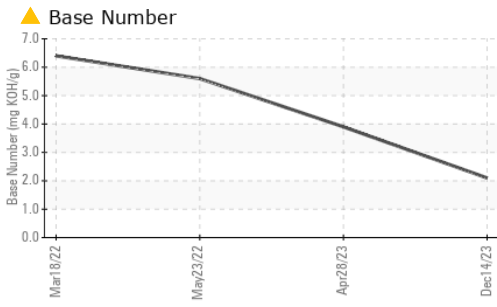
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>18</b>	13	7
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	2
Fuel	%	ASTM D3524	>5	<b>&lt;1.0</b>	<1.0	<b>▲ 2.2</b>
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>14.1</b>	13.5	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.9</b>	28.2	22.2
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>13</b>	7	5
Boron	ppm	ASTM D5185m		<b>11</b>	22	159
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>79</b>	71	75
Manganese	ppm	ASTM D5185m		<b>3</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>477</b>	666	476
Calcium	ppm	ASTM D5185m		<b>1227</b>	1313	1353
Phosphorus	ppm	ASTM D5185m		<b>824</b>	851	723
Zinc	ppm	ASTM D5185m		<b>912</b>	1058	888
Sulfur	ppm	ASTM D5185m		<b>2249</b>	3781	3722
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.6</b>	23.1	12.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>▲ 2.1</b>	3.9	5.6
Visc @ 100°C	cSt	ASTM D445		<b>9.3</b>	10.7	8.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0719752 **Received** : 16 Jan 2024  
**Lab Number** : 06060586 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10831968 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

**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: