



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**111**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- QTS)**

### RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0719782</b>	WC0537519	WC0537518
Sample Date		Client Info		<b>01 Feb 2024</b>	21 Dec 2021	21 Dec 2021
Machine Age	mls	Client Info		<b>31647</b>	24950	25005
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>	SEVERE	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>139</b>	615	98
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	12	3
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	4	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	22	34
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	10	4
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

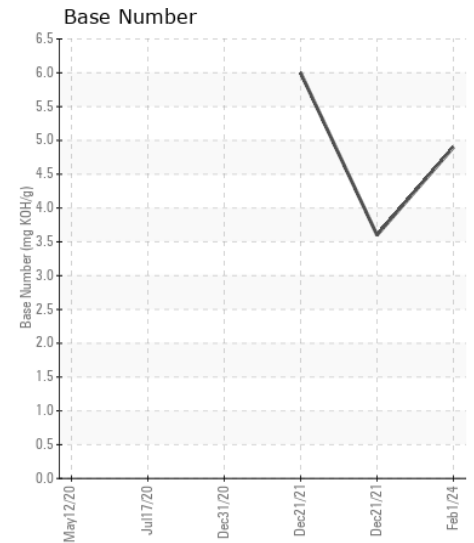
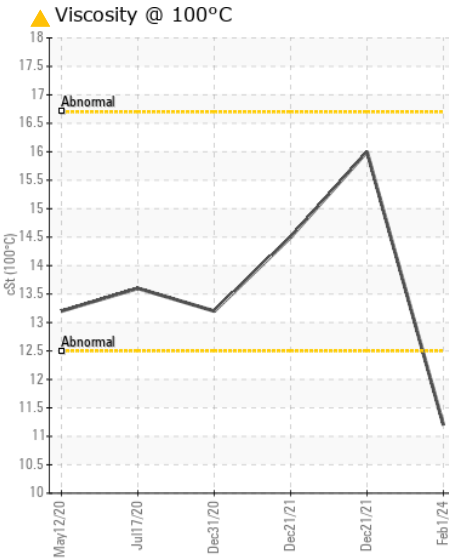
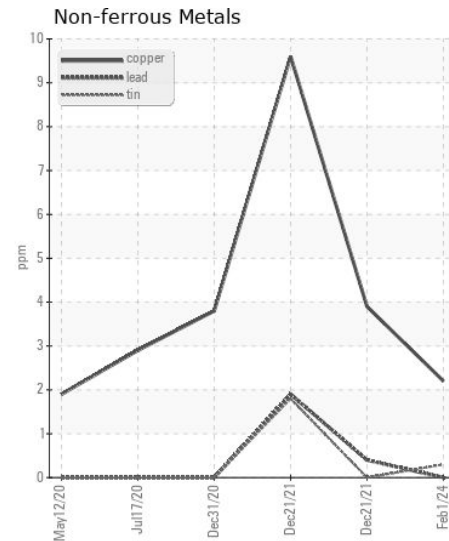
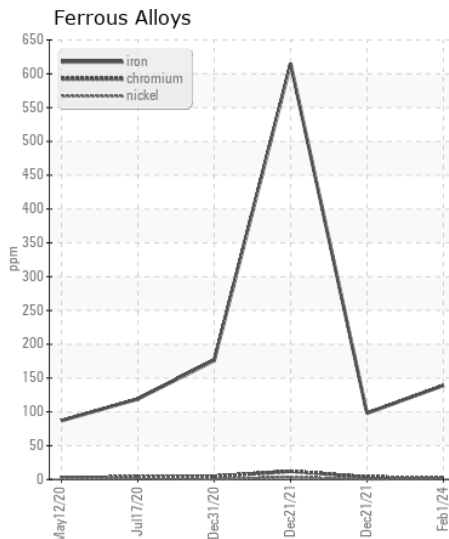
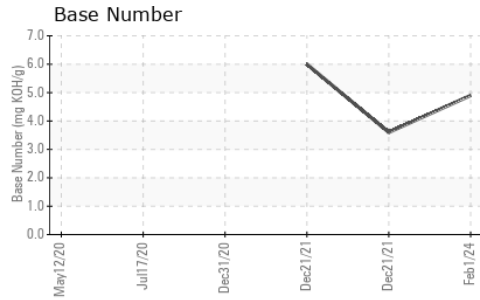
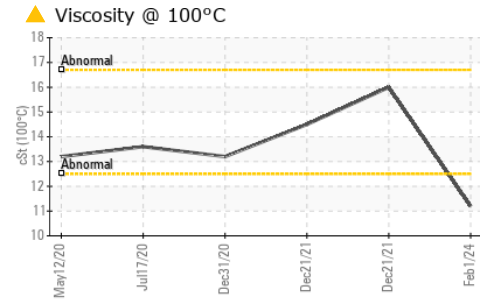
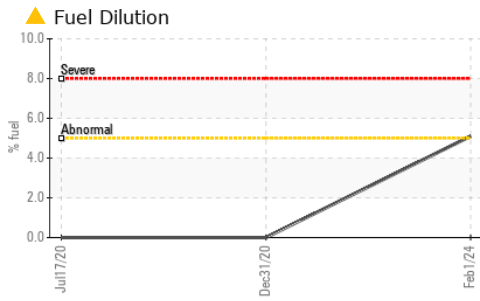
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	32	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	52
Fuel	%	ASTM D3524	>5	<b>5.1</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>	2	2.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.0</b>	31.4	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>42.6</b>	76.8	33.3
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<b>6</b>	13	4
Boron	ppm	ASTM D5185m		<b>2</b>	10	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>86</b>	46	3
Manganese	ppm	ASTM D5185m		<b>1</b>	4	1
Magnesium	ppm	ASTM D5185m		<b>18</b>	30	13
Calcium	ppm	ASTM D5185m		<b>3323</b>	3872	2397
Phosphorus	ppm	ASTM D5185m		<b>1150</b>	1282	855
Zinc	ppm	ASTM D5185m		<b>1345</b>	1532	1076
Sulfur	ppm	ASTM D5185m		<b>11750</b>	6105	3246
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>34.5</b>	89.6	22.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.9</b>	3.6	6
Visc @ 100°C	cSt	ASTM D445		<b>11.2</b>	16.0	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0719782  
**Lab Number** : 06087950  
**Unique Number** : 10875395  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**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: