



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**GENERAL AUTUMN WOODS(NSTATE)**  
 Component  
**Propane Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (4 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0887902</b>	WC0647395	WC0514315
Sample Date		Client Info		<b>16 Feb 2024</b>	18 Feb 2022	30 Dec 2020
Machine Age	hrs	Client Info		<b>405</b>	370	0
Oil Age	hrs	Client Info		<b>0</b>	0	12
Filter Age	hrs	Client Info		<b>0</b>	0	12
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

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>2</b>	2	2
Chromium	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	1
Lead	ppm	ASTM D5185m	>25	<b>3</b>	2	3
Copper	ppm	ASTM D5185m	>35	<b>2</b>	1	2
Tin	ppm	ASTM D5185m	>8	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

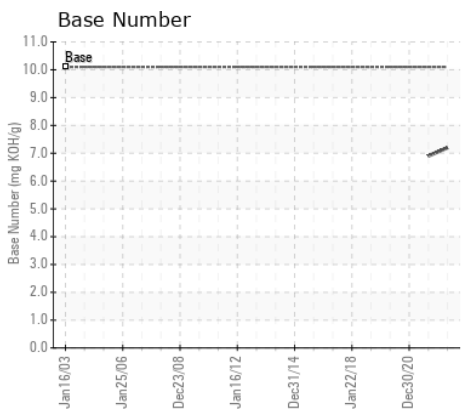
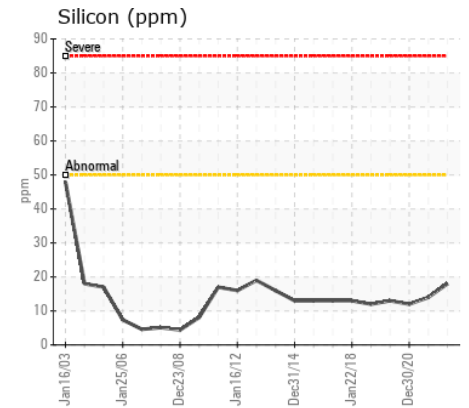
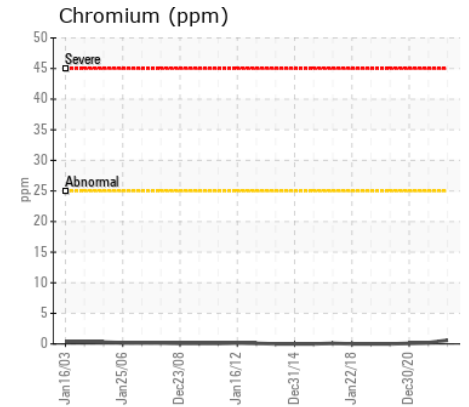
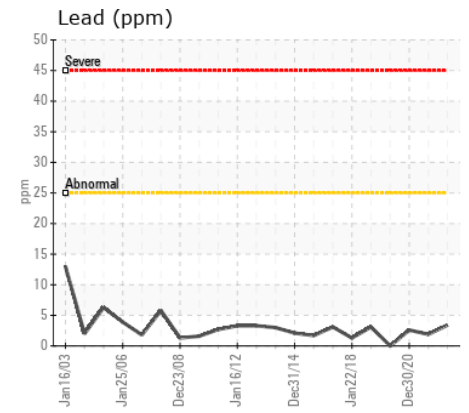
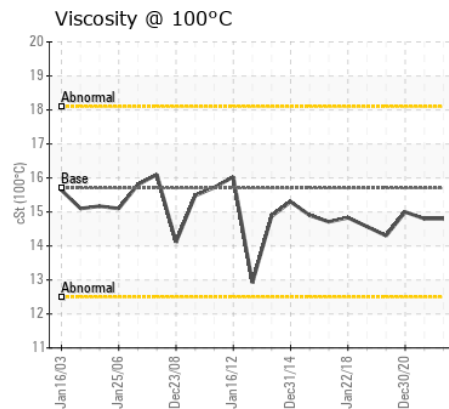
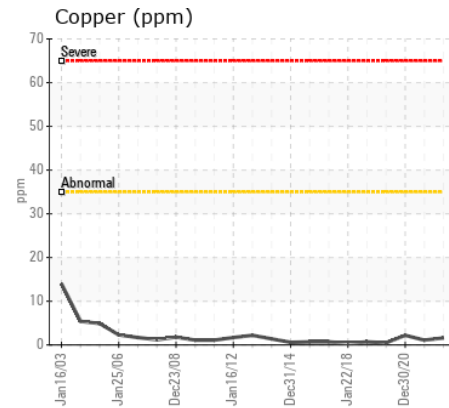
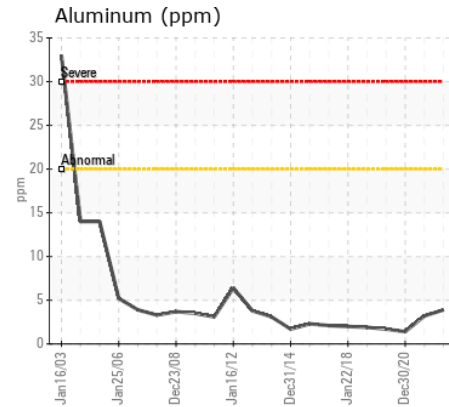
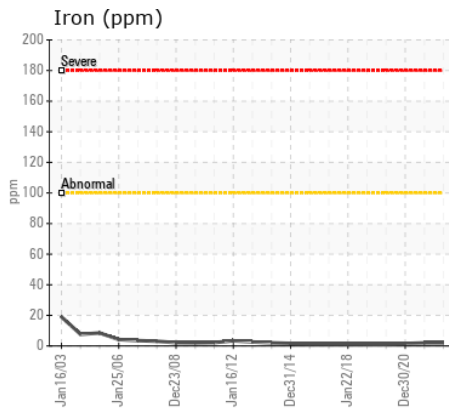
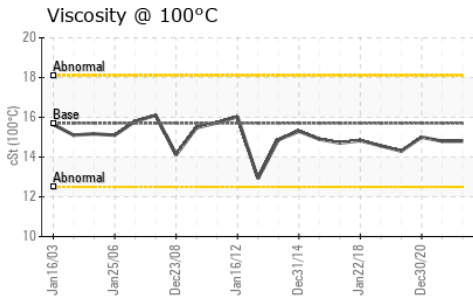
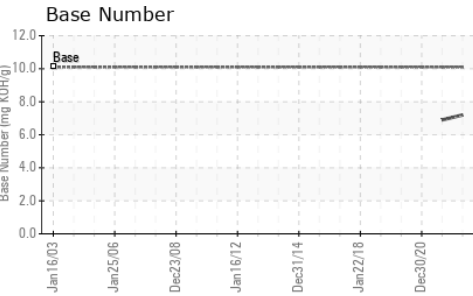
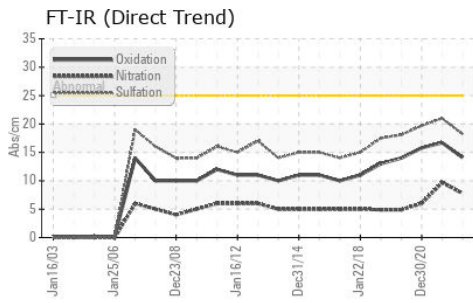
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>18</b>	14	12
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	9.7	6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	21.0	19.7
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	>0.1	<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>2</b>	2	2
Boron	ppm	ASTM D5185m	316	<b>90</b>	83	8
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>87</b>	67	64
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	24	<b>117</b>	494	978
Calcium	ppm	ASTM D5185m	2292	<b>2210</b>	2007	1155
Phosphorus	ppm	ASTM D5185m	1064	<b>1104</b>	1136	1062
Zinc	ppm	ASTM D5185m	1160	<b>1172</b>	1324	1310
Sulfur	ppm	ASTM D5185m	4996	<b>3848</b>	3405	2732
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	16.7	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.2</b>	6.9	---
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.8</b>	14.8	15.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0887902  
**Lab Number** : 06146918  
**Unique Number** : 10976996  
**Test Package** : MOB 1

**Received** : 12 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Wes Davis

**PIEDMONT GENERATOR**  
 7560 NC HWY 22 NORTH  
 CLIMAX, NC  
 US 27233

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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)

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