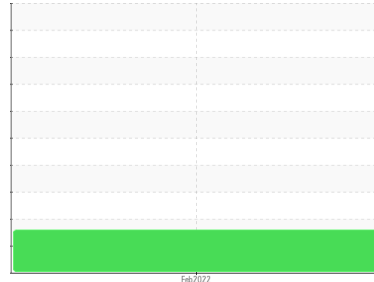




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**GRAND WAGONEER GRAND WAGONEER**

Component  
**Aft Gasoline Engine**  
Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

### ▲ Wear

Bearing and/or bushing wear is indicated.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0584608</b>	---	---
Sample Date	Client Info		<b>13 Feb 2022</b>	---	---
Machine Age	mls	Client Info	<b>149055</b>	---	---
Oil Age	mls	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	<b>74</b>	---
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	---
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185m	>40	<b>13</b>	---
Lead	ppm	ASTM D5185m	>50	<b>▲ 170</b>	---
Copper	ppm	ASTM D5185m	>155	<b>▲ 101</b>	---
Tin	ppm	ASTM D5185m	>10	<b>2</b>	---
Antimony	ppm	ASTM D5185m		<b>43</b>	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>13</b>	---
Barium	ppm	ASTM D5185m		<b>0</b>	---
Molybdenum	ppm	ASTM D5185m		<b>258</b>	---
Manganese	ppm	ASTM D5185m		<b>1</b>	---
Magnesium	ppm	ASTM D5185m		<b>35</b>	---
Calcium	ppm	ASTM D5185m		<b>2113</b>	---
Phosphorus	ppm	ASTM D5185m		<b>1286</b>	---
Zinc	ppm	ASTM D5185m		<b>1547</b>	---
Sulfur	ppm	ASTM D5185m		<b>4956</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>22</b>	---
Sodium	ppm	ASTM D5185m	>400	<b>19</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	---

## INFRA-RED

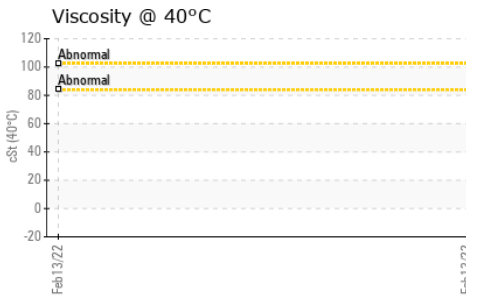
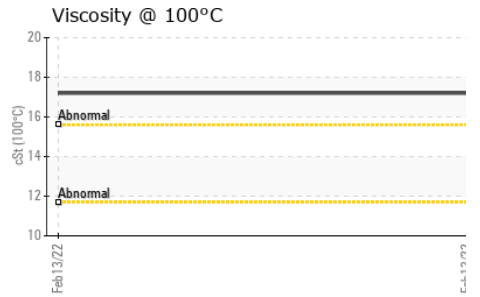
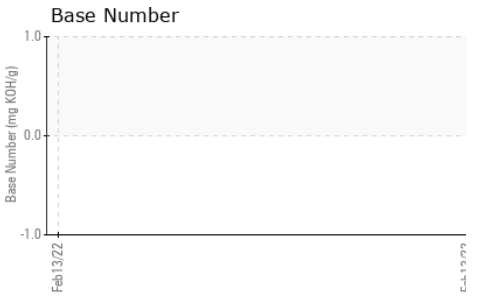
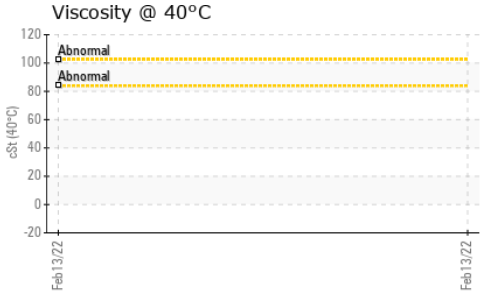
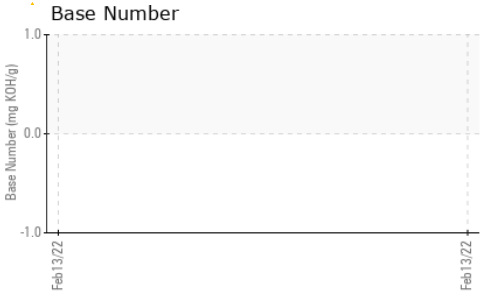
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.47</b>	---



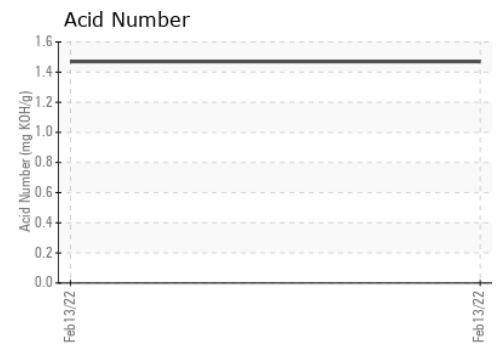
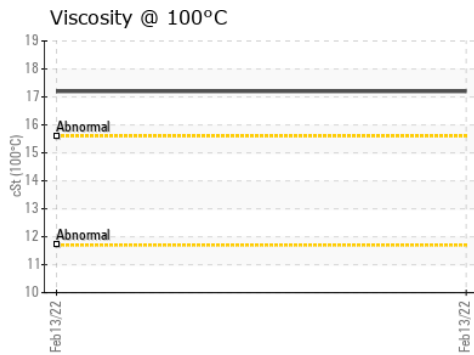
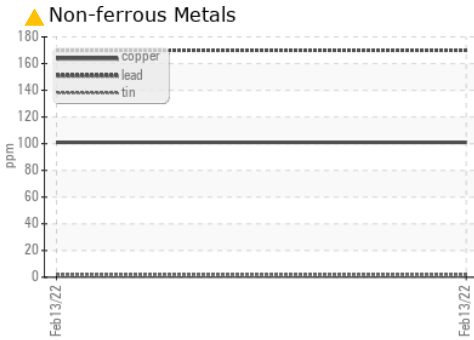
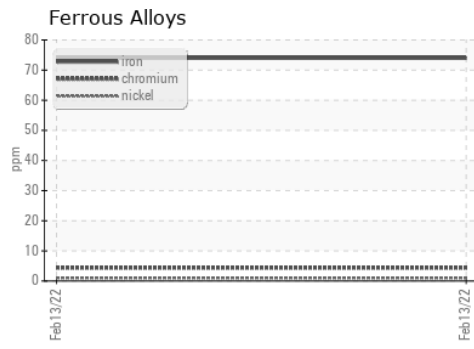
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	17.2	---	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0584608 **Received** : 14 Feb 2022  
**Lab Number** : 05467754 **Tested** : 16 Feb 2022  
**Unique Number** : 9851967 **Diagnosed** : 16 Feb 2022 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV40, PrtCount, TBN )

**ARKANASAS INDUSTRIAL MANUFACTURING**  
 NORTH 10141 HIGHWAY 63  
 BONO, AR  
 US 72416  
 Contact: Aurelio Azpiazu  
 aurelio@atfilters.com  
 T: (202)674-4440  
 F:

Certificate L2367  
 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)