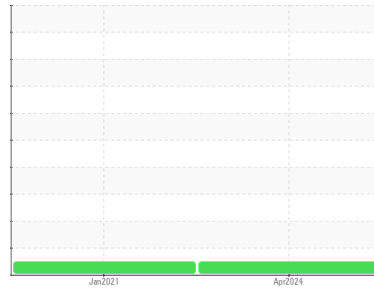




# OIL ANALYSIS REPORT

## Sample Rating Trend



Machine Id  
**SALTER GROVE**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**

### DIAGNOSIS

- Recommendation**  
Resample at the next service interval to monitor.
- Wear**  
All component wear rates are normal.
- Contamination**  
There is no indication of any contamination in the oil.
- 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.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>RP151997</b>	RP0016533	---
Sample Date	Client Info	<b>22 Apr 2024</b>	19 Jan 2021	---
Machine Age	hrs Client Info	<b>438</b>	429	---
Oil Age	hrs Client Info	<b>0</b>	0	---
Oil Changed	Client Info	<b>N/A</b>	N/A	---
Sample Status		<b>NORMAL</b>	NORMAL	---

### CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	---

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>9</b>	13	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	---
Silver	ppm ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm ASTM D5185m >20	<b>3</b>	5	---
Lead	ppm ASTM D5185m >40	<b>10</b>	12	---
Copper	ppm ASTM D5185m >330	<b>6</b>	3	---
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	---
Antimony	ppm ASTM D5185m	<b>---</b>	0	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	<1	---

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>13</b>	42	---
Barium	ppm ASTM D5185m	<b>&lt;1</b>	0	---
Molybdenum	ppm ASTM D5185m	<b>122</b>	6	---
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	1	---
Magnesium	ppm ASTM D5185m	<b>811</b>	9	---
Calcium	ppm ASTM D5185m	<b>2820</b>	1694	---
Phosphorus	ppm ASTM D5185m	<b>368</b>	556	---
Zinc	ppm ASTM D5185m	<b>368</b>	379	---

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>12</b>	9	---
Sodium	ppm ASTM D5185m	<b>2</b>	4	---
Potassium	ppm ASTM D5185m >20	<b>2</b>	<1	---
Fuel	% ASTM D3524 >5	<b>&lt;1.0</b>	0.4	---
Water	% ASTM D6304 >0.2	<b>NEG</b>	NEG	---

### INFRA-RED

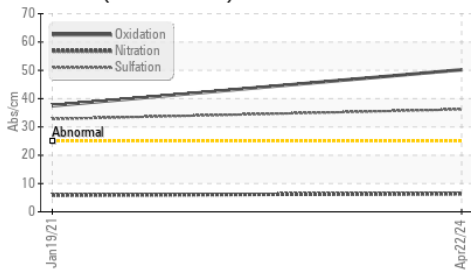
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.1	---
Nitration	Abs/cm *ASTM D7624 >20	<b>6.4</b>	5.9	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>36.2</b>	32.8	---

### FLUID DEGRADATION

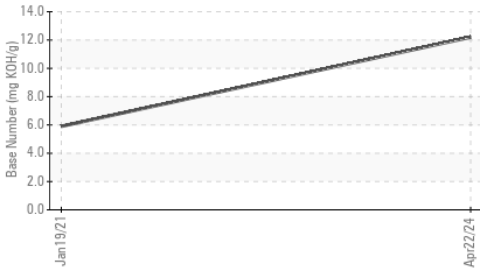
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>50.2</b>	37.5	---
Acid Number (AN)	mg KOH/g ASTM D8045	<b>---</b>	1.282	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>12.20</b>	5.90	---

# OIL ANALYSIS REPORT

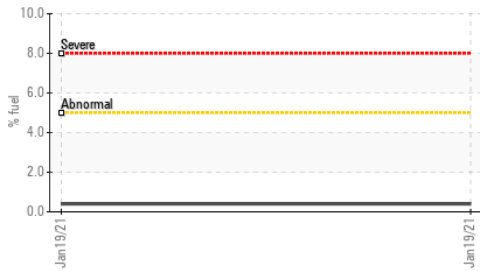
FT-IR (Direct Trend)



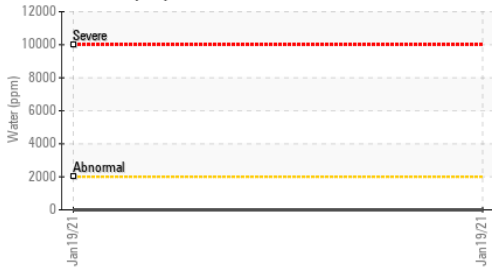
Base Number



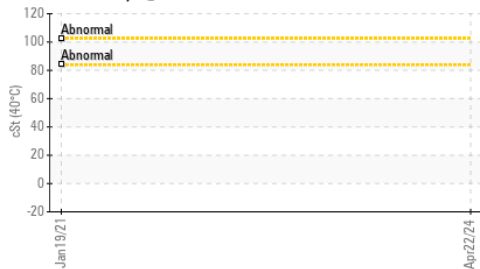
Fuel Dilution



Water (KF)



Viscosity @ 40°C

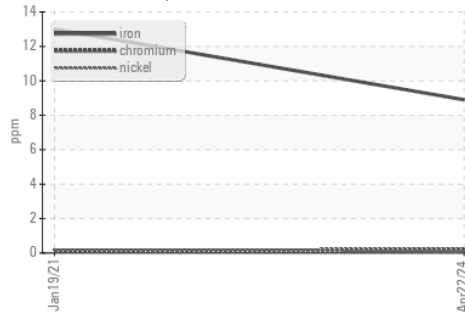


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

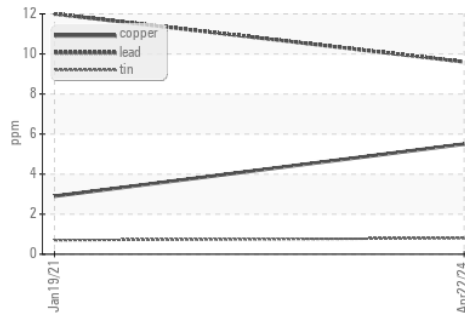
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.1	10.4	---

**GRAPHS**

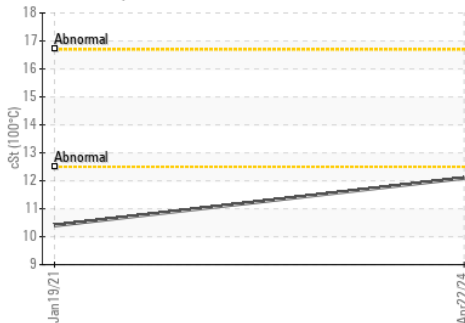
Ferrous Alloys



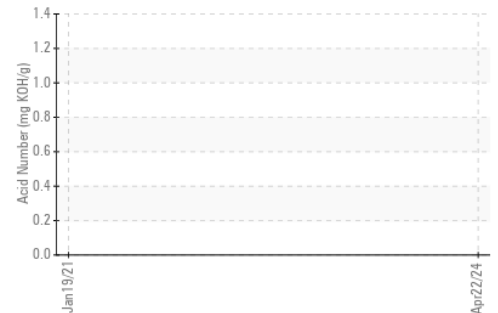
Non-ferrous Metals



Viscosity @ 100°C



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP151997 **Received** : 14 May 2024  
**Lab Number** : 06179531 **Tested** : 17 May 2024  
**Unique Number** : 11030857 **Diagnosed** : 17 May 2024 - Sean Felton  
**Test Package** : IND 2 ( Additional Tests: FT-IR, FuelDilution, KV100, TBN )

**WARWICK SEWER AUTHORITY**  
 125 ARTHUR DEVINE BLVD  
 WARWICK, RI  
 US 02888  
 Contact: JOHN BROSNAHAN  
 john.s.brosnahan@warwickri.com

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: