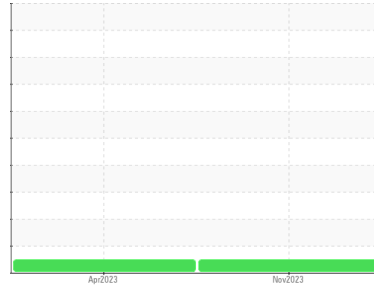




# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Machine Id  
**91030**  
 Component  
**Diesel Engine**  
 Fluid  
**AMERIGUARD 15W40 (10 GAL)**

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal. All other component wear rates are normal.

#### Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

#### 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>SBP0005865</b>	SBP0003646	---
Sample Date	Client Info			<b>09 Nov 2023</b>	28 Apr 2023	---
Machine Age	mls	Client Info		<b>637864</b>	617875	---
Oil Age	mls	Client Info		<b>0</b>	19590	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	<b>56</b>	25	---
Chromium	ppm	ASTM D5185m	>5	<b>3</b>	1	---
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>30	<b>13</b>	9	---
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m	>150	<b>5</b>	1	---
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>37</b>	108	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>77</b>	73	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>459</b>	540	---
Calcium	ppm	ASTM D5185m		<b>1622</b>	1512	---
Phosphorus	ppm	ASTM D5185m		<b>898</b>	826	---
Zinc	ppm	ASTM D5185m		<b>1099</b>	1032	---
Sulfur	ppm	ASTM D5185m		<b>2970</b>	3752	---

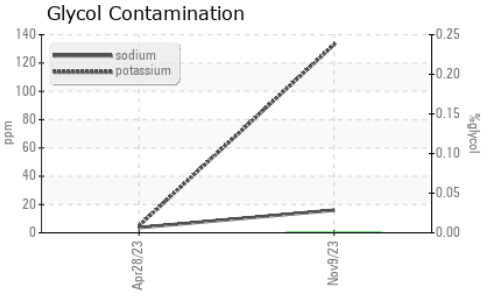
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>8</b>	8	---
Sodium	ppm	ASTM D5185m		<b>16</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>133</b>	5	---
Glycol	%	*ASTM D2982		<b>0.0</b>	NEG	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>1.3</b>	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	6.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.3</b>	21.3	---

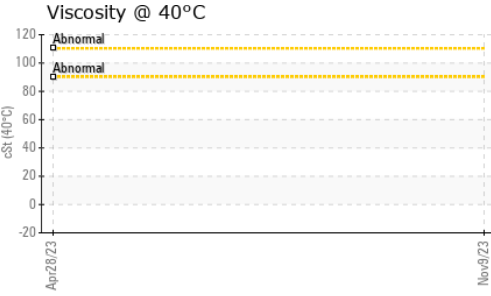
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.3</b>	16.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.1</b>	8.7	---



# OIL ANALYSIS REPORT

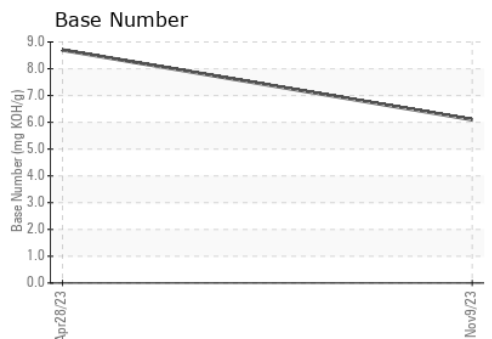
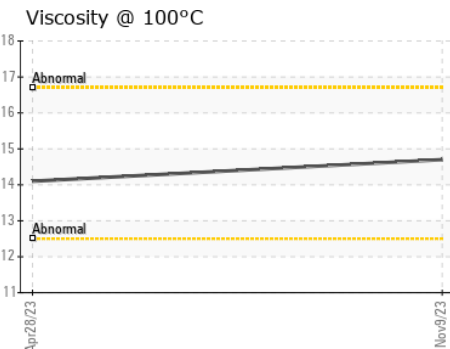
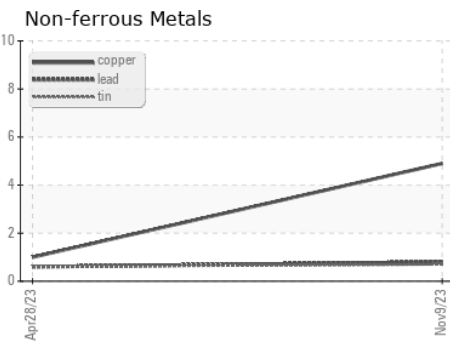
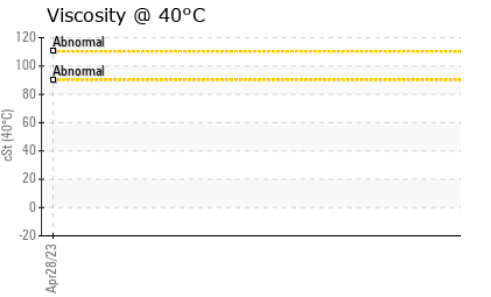
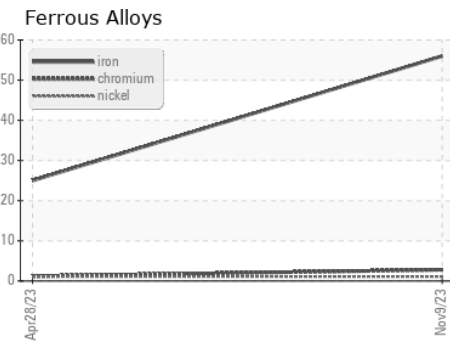
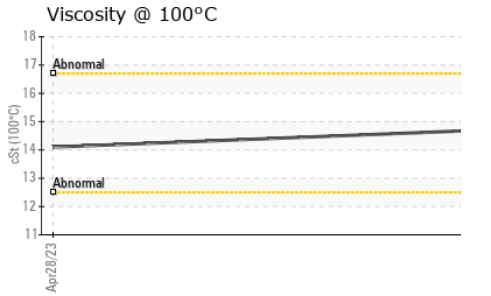


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	14.7	14.1	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0005865 **Received** : 14 Nov 2023  
**Lab Number** : 06007553 **Diagnosed** : 04 Dec 2023  
**Unique Number** : 10741315 **Diagnostician** : Doug Bogart  
**Test Package** : FLEET ( Additional Tests: Glycol, KV40 )

**Sapp Bros. Fleet - Cheyenne Location**  
 12500 I-80 Service Road  
 Cheyenne, WY  
 US 82009  
 Contact: Andy Guritza  
 aguritza@sappbros.net  
 T: (800)788-4671  
 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)