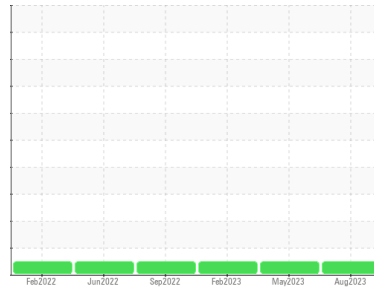




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**91087**  
 Component  
**Diesel Engine**  
 Fluid  
**AMERIGUARD 15W40 (10 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>SBP0004658</b>	SBP0001710	SBP0001695
Sample Date	Client Info			<b>21 Aug 2023</b>	23 May 2023	04 Feb 2023
Machine Age	mls	Client Info		<b>296091</b>	275800	255097
Oil Age	mls	Client Info		<b>20291</b>	20703	25046
Oil Changed	Client Info			<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	<b>7</b>	9	16
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>6</b>	5	6
Lead	ppm	ASTM D5185m	>30	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>150	<b>3</b>	4	4
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	<1	10
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>64</b>	64	61
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1088</b>	1075	931
Calcium	ppm	ASTM D5185m		<b>1168</b>	1215	1123
Phosphorus	ppm	ASTM D5185m		<b>1177</b>	1060	999
Zinc	ppm	ASTM D5185m		<b>1491</b>	1403	1211
Sulfur	ppm	ASTM D5185m		<b>3396</b>	3662	2635

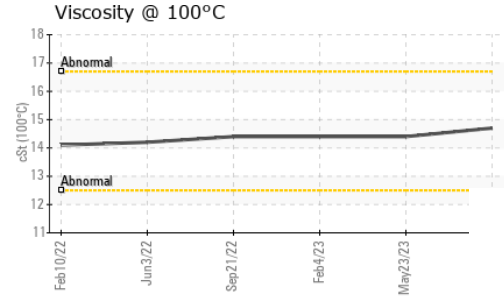
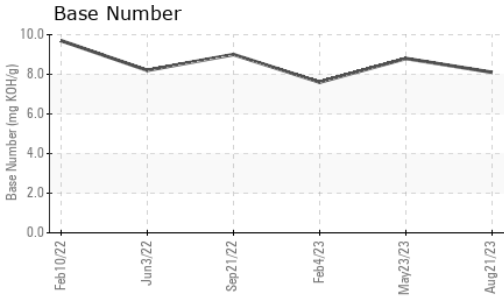
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>3</b>	4	5
Sodium	ppm	ASTM D5185m		<b>1</b>	1	8
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	5	26

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.6	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	20.9	21.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	16.5	17.1
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.1</b>	8.8	7.6



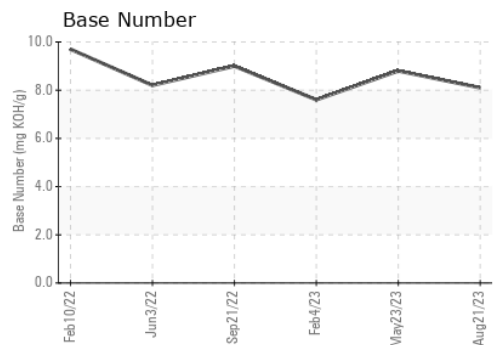
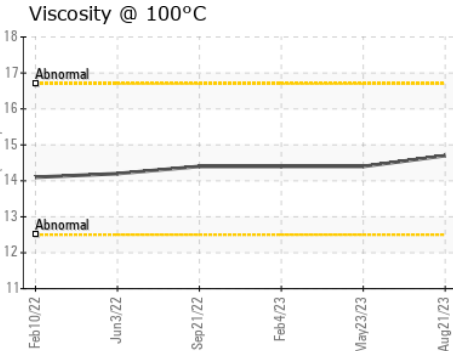
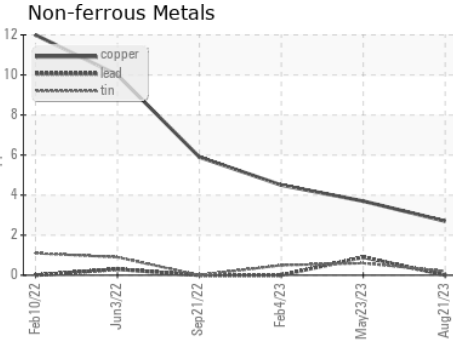
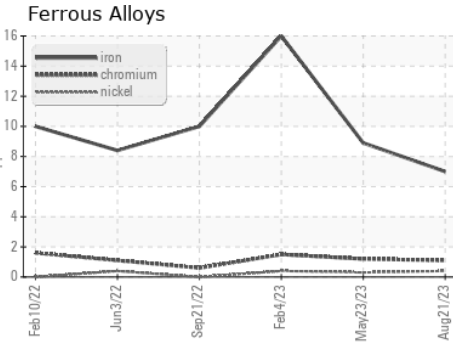
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>14.7</b>	14.4	14.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0004658 **Received** : 04 Oct 2023  
**Lab Number** : **05968604** **Diagnosed** : 04 Oct 2023  
**Unique Number** : 10675155 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**Sapp Bros. Fleet - Ogallala Location**  
 US  
 Contact: Service Manager

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)