



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**91086**  
Component  
**Diesel Engine**  
Fluid  
**AMERIGUARD 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>SBP0005913</b>	SBP0004661	SBP0001709
Sample Date		Client Info		<b>19 Jan 2024</b>	07 Sep 2023	16 May 2023
Machine Age	mls	Client Info		<b>279364</b>	258815	238586
Oil Age	mls	Client Info		<b>20549</b>	20229	18214
Filter Age	mls	Client Info		<b>20549</b>	20229	18214
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

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>10</b>	9	9
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	3	4
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m	>150	<b>4</b>	4	5
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

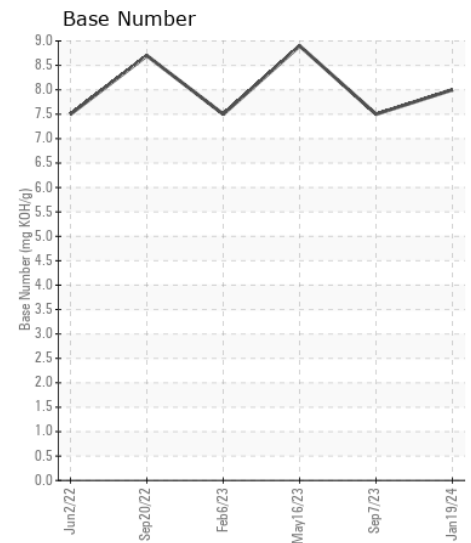
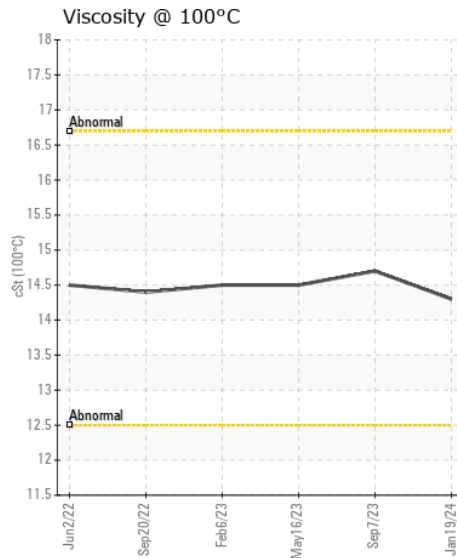
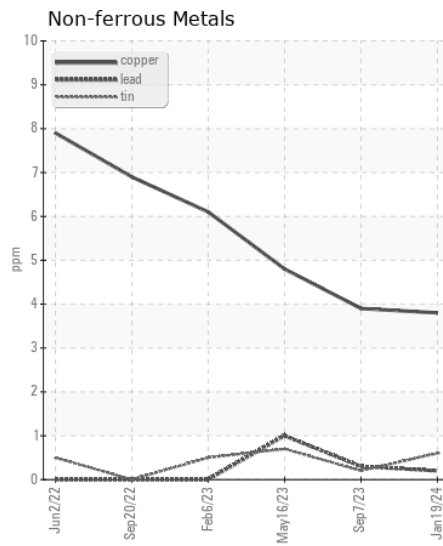
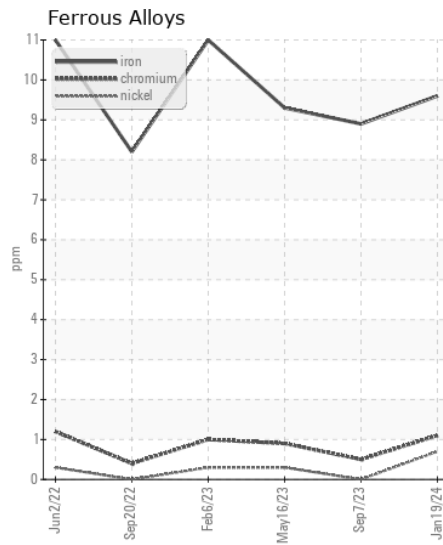
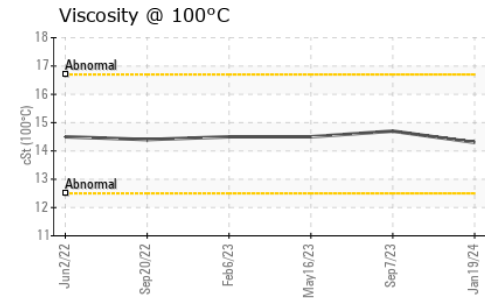
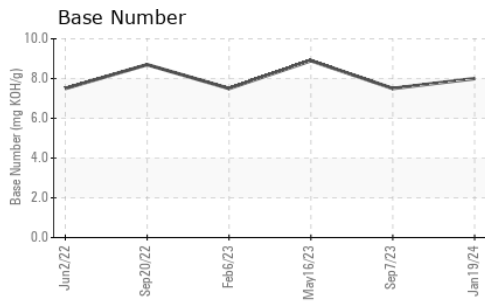
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.6	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	21.7	21.0
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	>0.2	<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>0</b>	2	2
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>65</b>	67	63
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1056</b>	1136	1075
Calcium	ppm	ASTM D5185m		<b>1153</b>	1224	1227
Phosphorus	ppm	ASTM D5185m		<b>1075</b>	1126	1067
Zinc	ppm	ASTM D5185m		<b>1339</b>	1442	1414
Sulfur	ppm	ASTM D5185m		<b>3140</b>	3003	3689
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.1</b>	18.0	17.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.0</b>	7.5	8.9
Visc @ 100°C	cSt	ASTM D445		<b>14.3</b>	14.7	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0005913  
**Lab Number** : 06085275  
**Unique Number** : 10872720  
**Test Package** : FLEET

**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Wes Davis

**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)

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F: