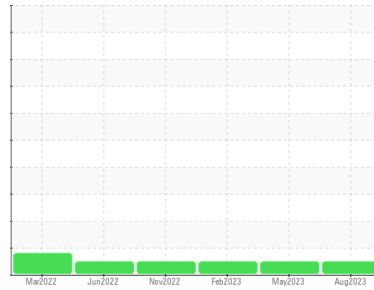




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
1102
 Component
Diesel Engine
 Fluid
AMERIGUARD 15W40 (--- 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			SBP0004654	SBP0001703	SBP0001697
Sample Date	Client Info			15 Aug 2023	02 May 2023	08 Feb 2023
Machine Age	mls	Client Info		149272	128281	106764
Oil Age	mls	Client Info		20991	21517	23299
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	8	8	10
Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	4	1	4
Lead	ppm	ASTM D5185m	>30	0	0	1
Copper	ppm	ASTM D5185m	>150	33	40	57
Tin	ppm	ASTM D5185m	>5	2	1	2
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6	<1	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		72	61	63
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		1215	998	1026
Calcium	ppm	ASTM D5185m		1298	1116	1214
Phosphorus	ppm	ASTM D5185m		1302	1017	980
Zinc	ppm	ASTM D5185m		1651	1304	1315
Sulfur	ppm	ASTM D5185m		3581	3242	2928

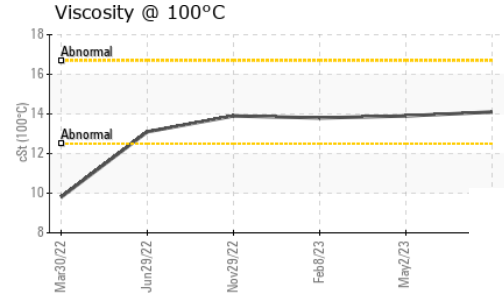
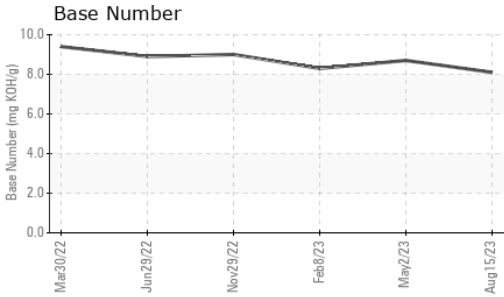
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	3	3
Sodium	ppm	ASTM D5185m		2	1	<1
Potassium	ppm	ASTM D5185m	>20	4	2	5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.9	7.9	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	20.3	20.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	16.3	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		8.1	8.7	8.3



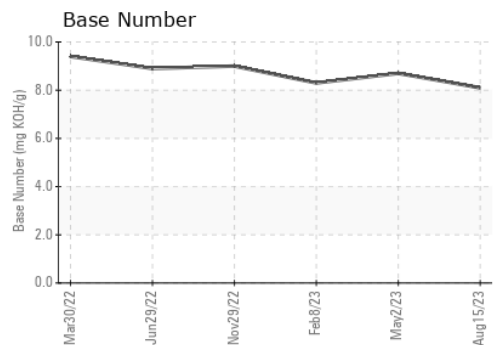
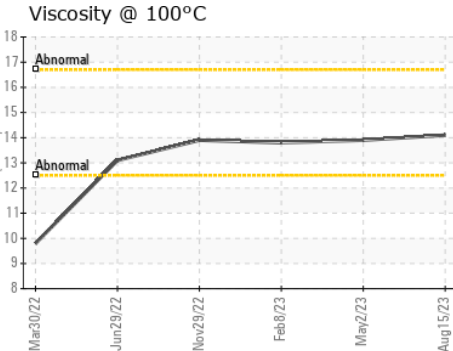
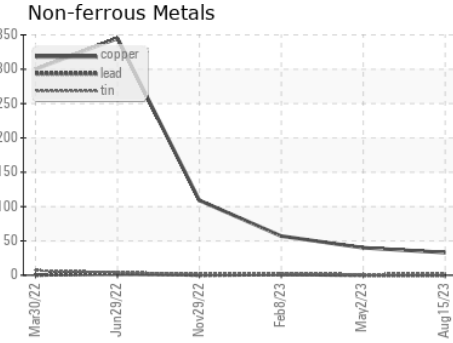
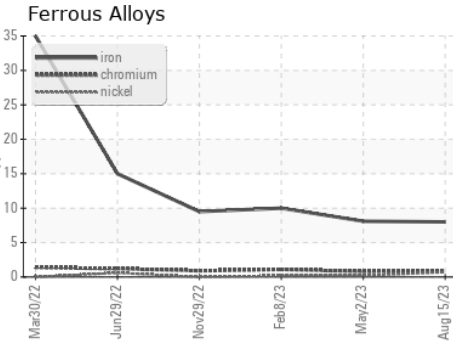
OIL ANALYSIS REPORT



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	14.1	13.9	13.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0004654 **Received** : 04 Oct 2023
Lab Number : 05968600 **Diagnosed** : 04 Oct 2023
Unique Number : 10675151 **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)