



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SAPP BROS FLEET COMPANY/Omaha Tire Warehouse

Machine Id
98240
 Component
Natural Gas Engine
 Fluid
5W30 SYN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		SBP0006595	SBP0006598	SBP0006593
Sample Date		Client Info		04 Jun 2024	26 Apr 2024	11 Mar 2024
Machine Age	mls	Client Info		53198	46350	36137
Oil Age	mls	Client Info		53198	46350	36137
Filter Age	mls	Client Info		53198	46350	36137
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	4	11	6
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		<1	2	12
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	4	3	5
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>35	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

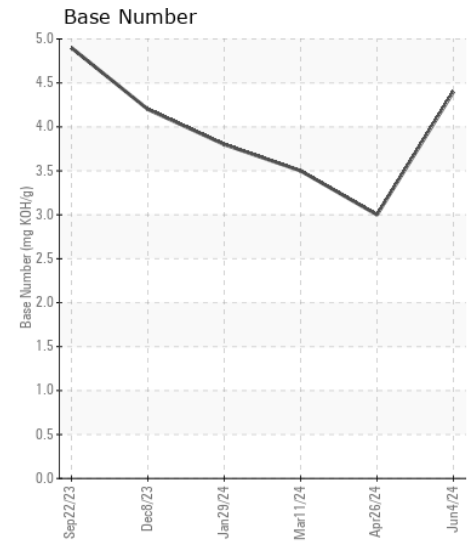
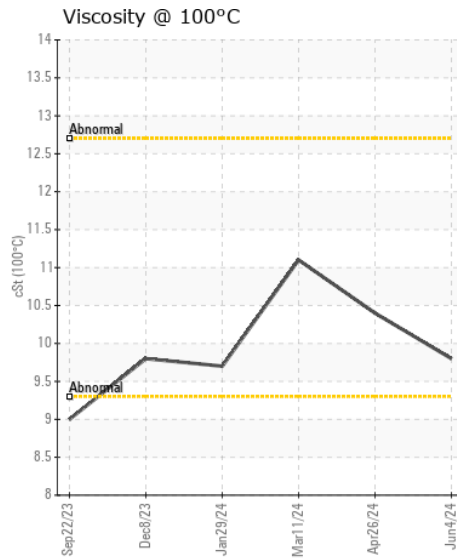
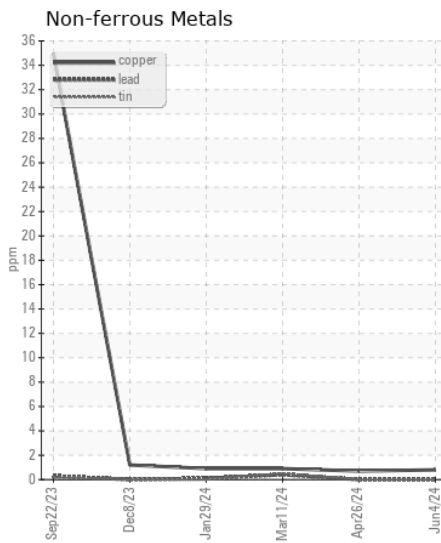
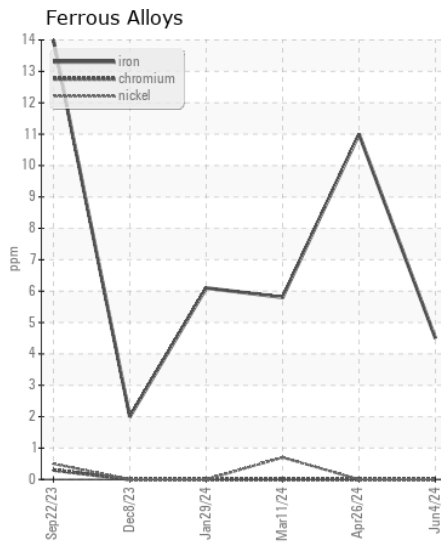
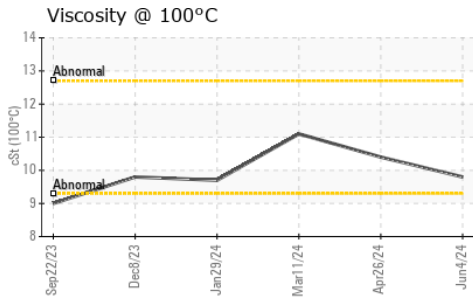
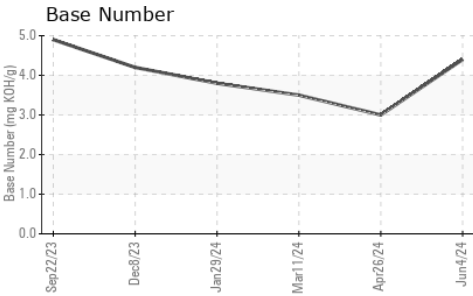
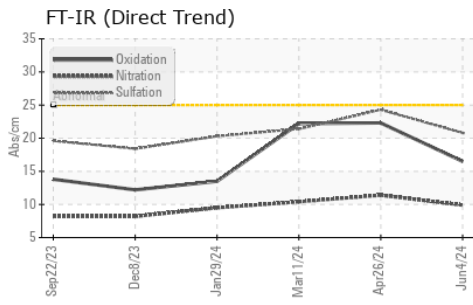
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	17	17	7
Potassium	ppm	ASTM D5185m	>20	2	0	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	9.9	11.4	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	24.3	21.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	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		2	4	4
Boron	ppm	ASTM D5185m		21	0	16
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		253	253	91
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		493	480	214
Calcium	ppm	ASTM D5185m		1358	1434	1450
Phosphorus	ppm	ASTM D5185m		651	669	643
Zinc	ppm	ASTM D5185m		808	806	782
Sulfur	ppm	ASTM D5185m		2287	2230	2451
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	22.3	22.2
Base Number (BN)	mg KOH/g	ASTM D2896		4.4	3.0	3.5
Visc @ 100°C	cSt	ASTM D445		9.8	10.4	11.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0006595
Lab Number : 06220688
Unique Number : 11098885
Test Package : FLEET
Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 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)

T:
 F: