OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
98064
Component
Gasoline Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

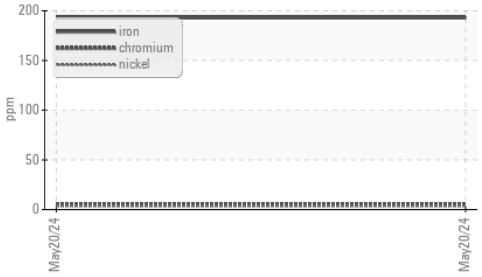
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a trace of moisture present in the oil. Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

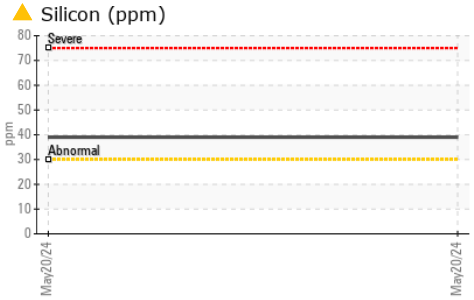
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		SBP0001990	---	---
Sample Date		Client Info		20 May 2024	---	---
Machine Age	mls	Client Info		146079	---	---
Oil Age	mls	Client Info		7500	---	---
Filter Age	mls	Client Info		7500	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>150	▲ 193	---	---
Chromium	ppm	ASTM D5185m	>20	5	---	---
Nickel	ppm	ASTM D5185m	>5	4	---	---
Titanium	ppm	ASTM D5185m		3	---	---
Silver	ppm	ASTM D5185m	>2	1	---	---
Aluminum	ppm	ASTM D5185m	>40	● 14	---	---
Lead	ppm	ASTM D5185m	>50	41	---	---
Copper	ppm	ASTM D5185m	>155	17	---	---
Tin	ppm	ASTM D5185m	>10	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>30	▲ 39	---	---
Potassium	ppm	ASTM D5185m	>20	4	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water	%	ASTM D6304	>0.2	▲ 0.187	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 1870	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	14.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ MODER	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	---	---
Sodium	ppm	ASTM D5185m	>400	67	---	---
Boron	ppm	ASTM D5185m		23	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		334	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m		511	---	---
Calcium	ppm	ASTM D5185m		1575	---	---
Phosphorus	ppm	ASTM D5185m		806	---	---
Zinc	ppm	ASTM D5185m		978	---	---
Sulfur	ppm	ASTM D5185m		2491	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		3.1	---	---
Visc @ 100°C	cSt	ASTM D445		9.8	---	---

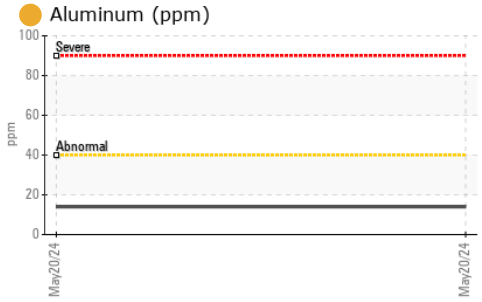
Ferrous Alloys



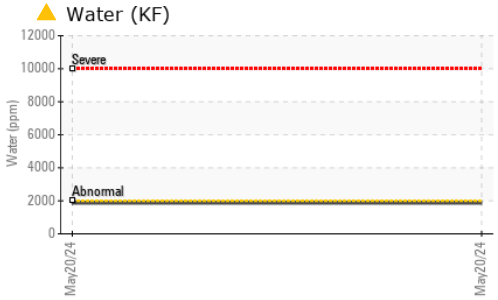
Silicon (ppm)



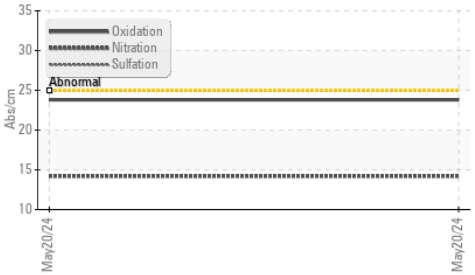
Aluminum (ppm)



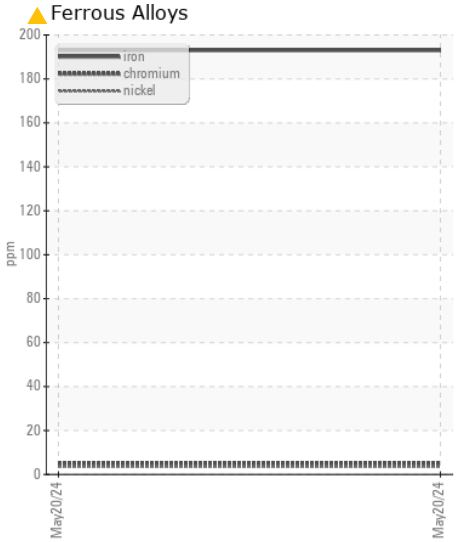
Water (KF)



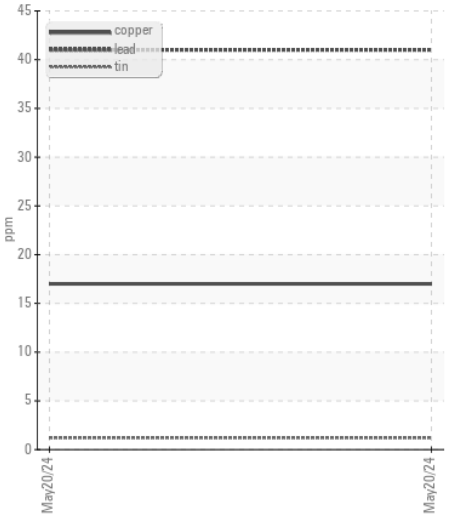
FT-IR (Direct Trend)



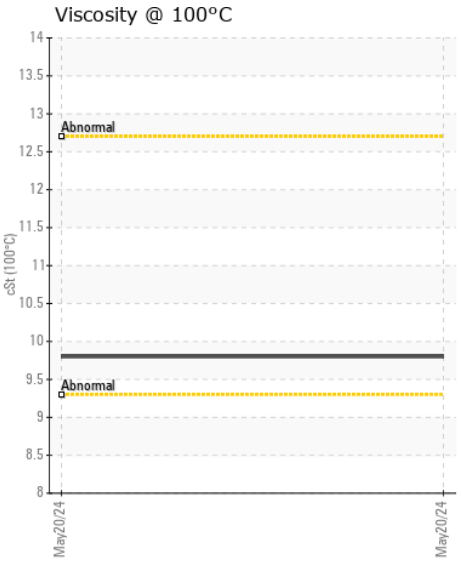
Ferrous Alloys



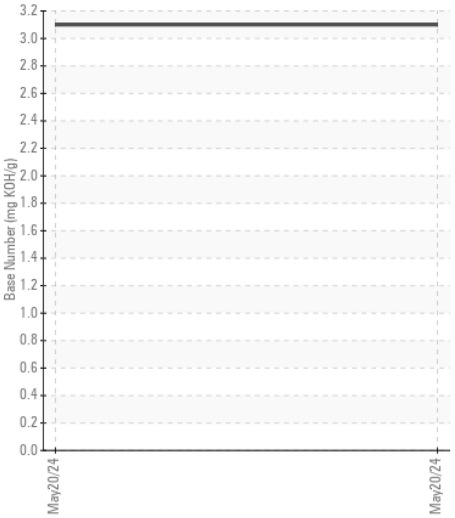
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0001990
Lab Number : 06191943
Unique Number : 11048695
Test Package : FLEET (Additional Tests: Glycol, KF)

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Jonathan Hester

Sapp Bros. Fleet - Lincoln Location
,
US
Contact: Service Manager
T:
F:

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)