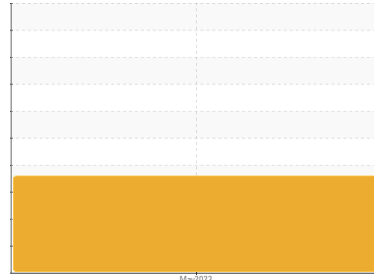




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
91061

Component
Diesel Engine

Fluid
AMERIGUARD 15W40 (10 GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

▲ Contamination

Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. Test for glycol is negative.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	SBP0003613	---	---
Sample Date	Client Info	12 May 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	---	---
Water	WC Method >0.2	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	▲ 202	---	---
Chromium	ppm ASTM D5185m >5	<1	---	---
Nickel	ppm ASTM D5185m >2	<1	---	---
Titanium	ppm ASTM D5185m	<1	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >30	4	---	---
Lead	ppm ASTM D5185m >30	5	---	---
Copper	ppm ASTM D5185m >150	61	---	---
Tin	ppm ASTM D5185m >5	<1	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	103	---	---
Barium	ppm ASTM D5185m	3	---	---
Molybdenum	ppm ASTM D5185m	13	---	---
Manganese	ppm ASTM D5185m	3	---	---
Magnesium	ppm ASTM D5185m	102	---	---
Calcium	ppm ASTM D5185m	1746	---	---
Phosphorus	ppm ASTM D5185m	743	---	---
Zinc	ppm ASTM D5185m	905	---	---
Sulfur	ppm ASTM D5185m	4634	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	▲ 43	---	---
Sodium	ppm ASTM D5185m	13	---	---
Potassium	ppm ASTM D5185m >20	▲ 99	---	---
Glycol	% *ASTM D2982	0.0	---	---

INFRA-RED

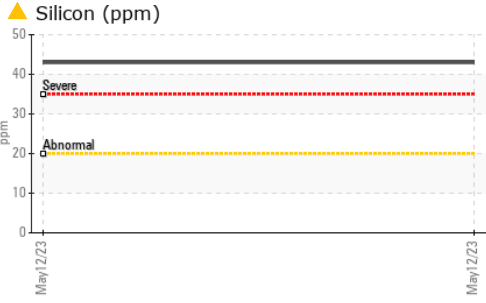
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	---	---
Nitration	Abs/cm *ASTM D7624 >20	8.1	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	20.7	---	---

FLUID DEGRADATION

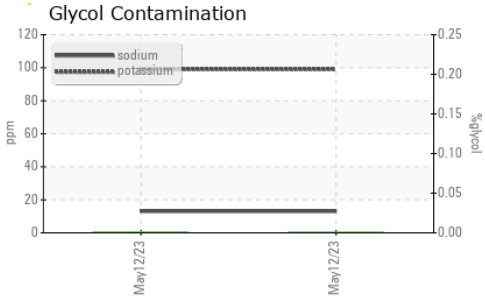
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	15.5	---	---
Base Number (BN)	mg KOH/g ASTM D2896	7.0	---	---



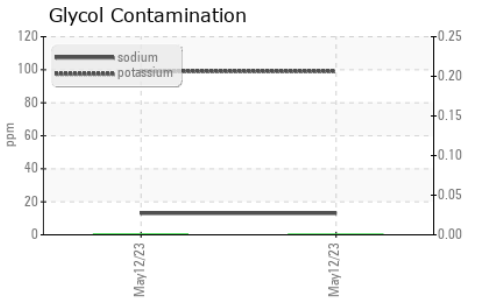
OIL ANALYSIS REPORT



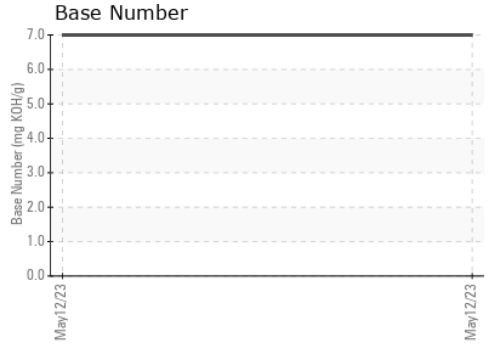
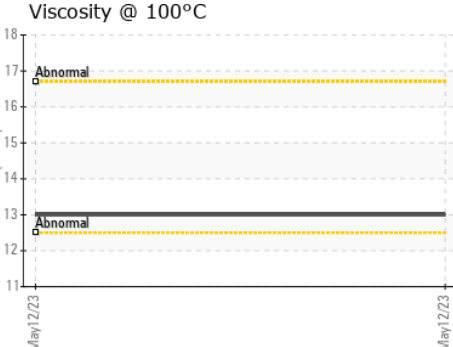
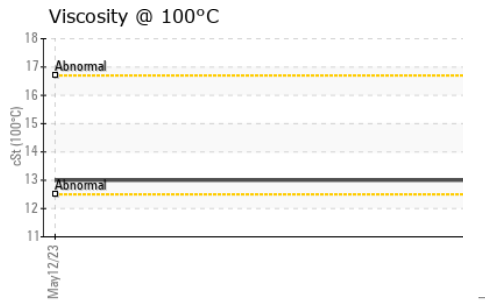
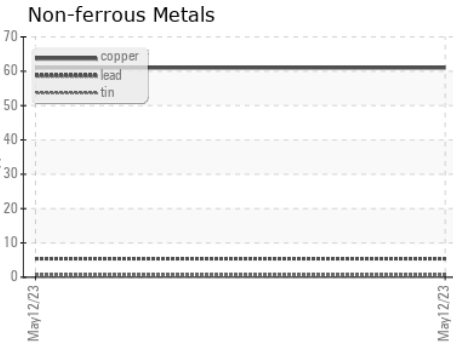
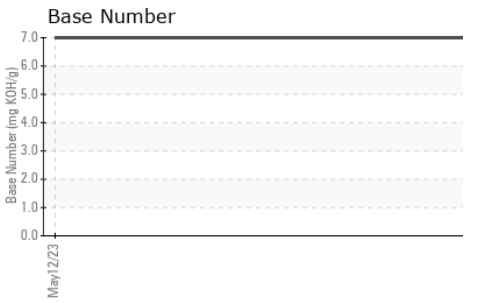
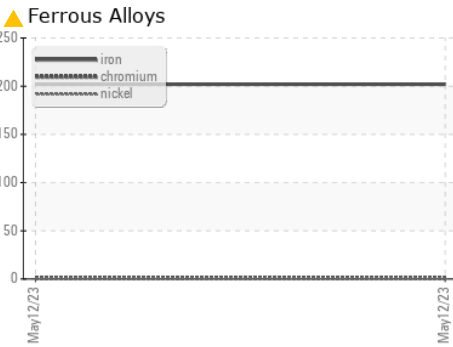
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.0	---	---



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0003613 **Received** : 12 Jun 2023
Lab Number : 05871419 **Diagnosed** : 15 Jun 2023
Unique Number : 10511203 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

Sapp Bros. Fleet - Peru Location
 3130 May Road
 Peru, IL
 US 61354
 Contact: Matt Ossola
 MOssola@SAPPBROS.NET

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: