



Machine Id
2327130
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0106416	---	---
Sample Date		Client Info		01 Jan 2024	---	---
Machine Age	mls	Client Info		30000	---	---
Oil Age	mls	Client Info		30000	---	---
Filter Age	mls	Client Info		30000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	65	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	3	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	▲ 22	---	---
Lead	ppm	ASTM D5185m	>40	3	---	---
Copper	ppm	ASTM D5185m	>330	227	---	---
Tin	ppm	ASTM D5185m	>15	6	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate possible alumina-silicate (coarse dirt) ingress.

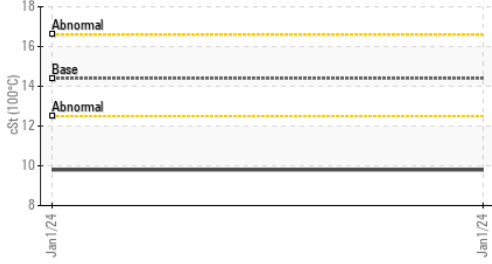
Silicon	ppm	ASTM D5185m	>25	▲ 84	---	---
Potassium	ppm	ASTM D5185m	>20	64	---	---
Fuel	%	ASTM D3524	>5	0.3	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.6	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	---	---
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	---	---

FLUID CONDITION

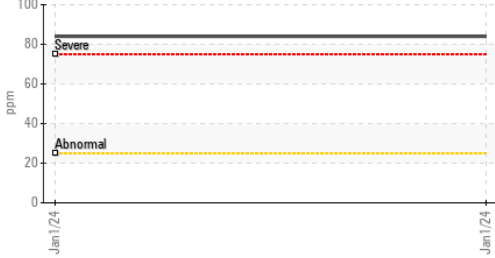
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	7	---	---
Boron	ppm	ASTM D5185m	250	59	---	---
Barium	ppm	ASTM D5185m	10	<1	---	---
Molybdenum	ppm	ASTM D5185m	100	117	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m	450	734	---	---
Calcium	ppm	ASTM D5185m	3000	1370	---	---
Phosphorus	ppm	ASTM D5185m	1150	726	---	---
Zinc	ppm	ASTM D5185m	1350	872	---	---
Sulfur	ppm	ASTM D5185m	4250	2073	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.3	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 9.8	---	---

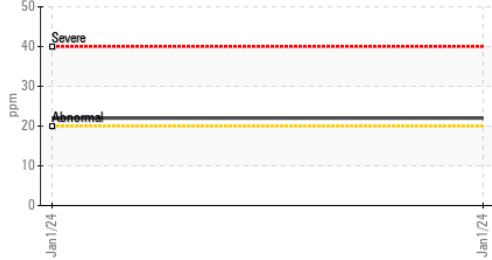
▲ Viscosity @ 100°C



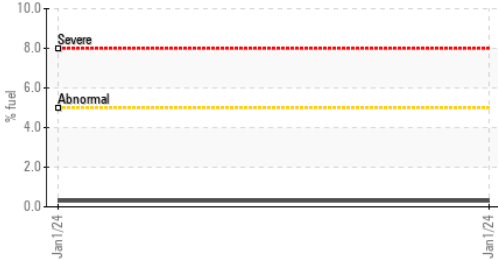
▲ Silicon (ppm)



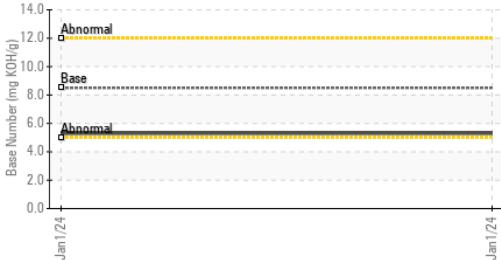
▲ Aluminum (ppm)



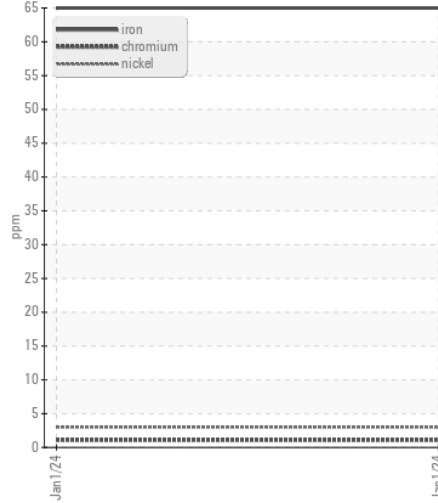
Fuel Dilution



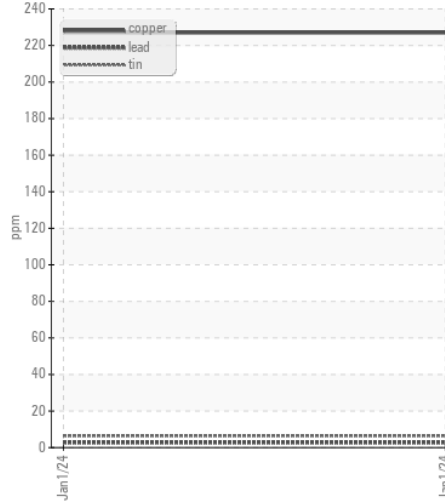
Base Number



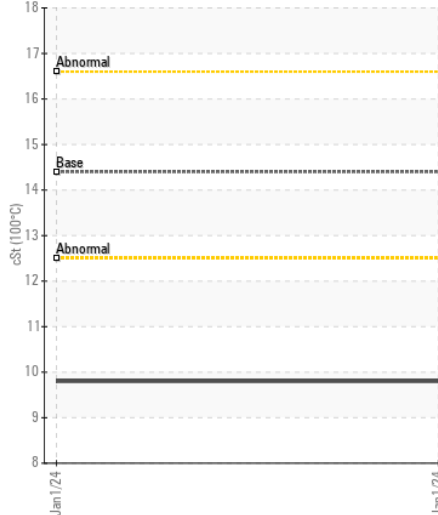
Ferrous Alloys



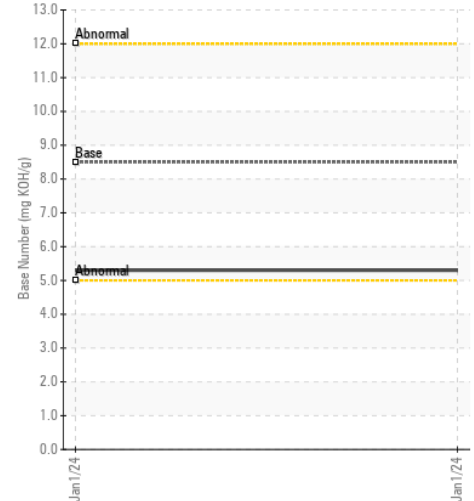
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106416 **Received** : 19 Jan 2024
Lab Number : 06065303 **Diagnosed** : 24 Jan 2024
Unique Number : 10836685 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

PERDUE FARMS INC - GARAGE
 189 PERDUE WAY
 CANDOR, NC
 US 27229
 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: