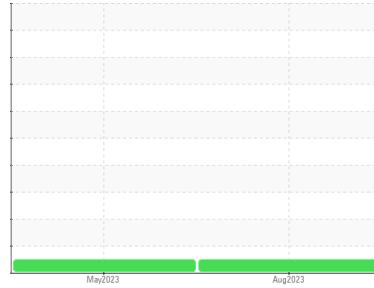


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Area
(51491Z) Walgreens
Machine Id
[Walgreens] 136A63353
Component
Diesel Engine
Fluid
SAE 0W30 (11 GAL)

DIAGNOSIS
Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		PCA0103545	PCA0092942	---
Sample Date	Client Info		09 Aug 2023	23 May 2023	---
Machine Age	mls	Client Info	108798	66049	---
Oil Age	mls	Client Info	60000	66049	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	33	77	---
Chromium	ppm	ASTM D5185m >5	4	8	---
Nickel	ppm	ASTM D5185m >2	0	2	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m >3	0	<1	---
Aluminum	ppm	ASTM D5185m >30	40	109	---
Lead	ppm	ASTM D5185m >30	0	3	---
Copper	ppm	ASTM D5185m >150	37	137	---
Tin	ppm	ASTM D5185m >5	1	4	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	16	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	61	49	---
Manganese	ppm	ASTM D5185m	1	5	---
Magnesium	ppm	ASTM D5185m	958	704	---
Calcium	ppm	ASTM D5185m	1253	1665	---
Phosphorus	ppm	ASTM D5185m	888	834	---
Zinc	ppm	ASTM D5185m	1205	1037	---
Sulfur	ppm	ASTM D5185m	2376	2363	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	5	10	---
Sodium	ppm	ASTM D5185m >12	3	8	---
Potassium	ppm	ASTM D5185m >20	80	247	---

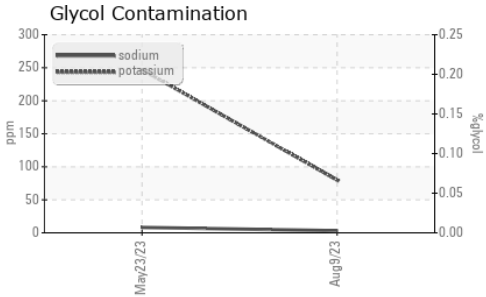
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.5	0.7	---
Nitration	Abs/cm	*ASTM D7624 >20	9.5	12.3	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.3	24.4	---

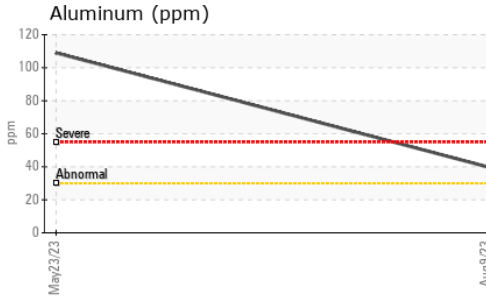
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.6	27.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	6.4	5.8	---

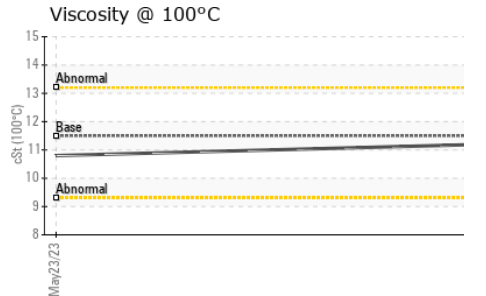
OIL ANALYSIS REPORT



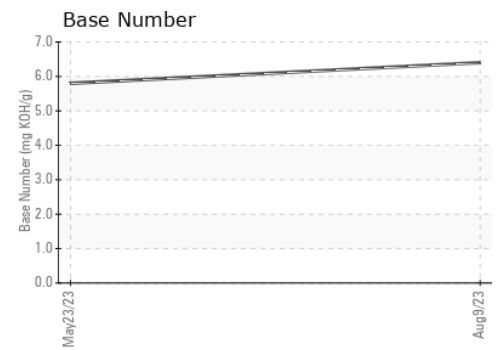
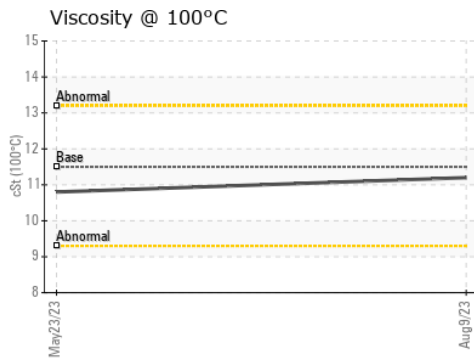
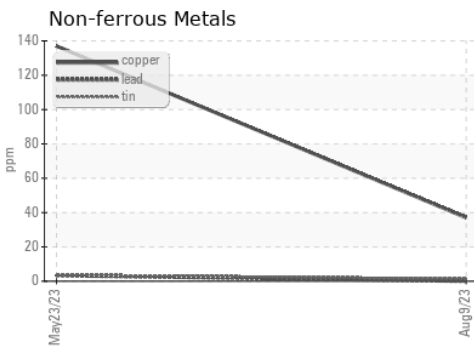
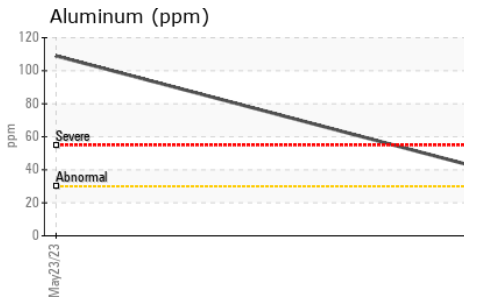
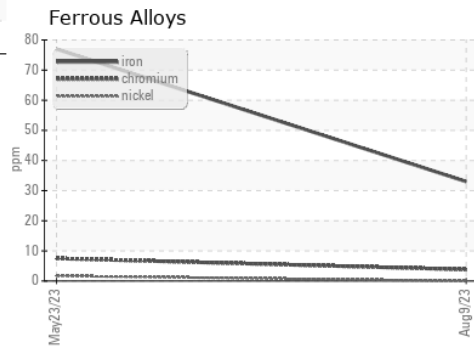
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	11.5	11.2	10.8



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0103545 **Received** : 21 Aug 2023
Lab Number : **05930258** **Diagnosed** : 23 Aug 2023
Unique Number : 10615529 **Diagnostician** : Sean Felton
Test Package : FLEET

Transervice - Shop 1369 - Berkeley-Waxahachie
 710 Ovilla Road
 Waxahachie, TX
 US 75167
 Contact: Robert Beal
 rbeal@transervice.com
 T: (972)923-9928
 F: (972)923-9919

Certificate L2367
 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)