

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Machine Id
409
 Component
Diesel Engine
 Fluid
ZINC-FREE ENGINE OIL SAE 40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) ZINC-FREE ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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	PCA05995906	---	---
Sample Date	Client Info	25 Sep 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		NORMAL	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	37	---	---
Chromium	ppm ASTM D5185m >20	2	---	---
Nickel	ppm ASTM D5185m >4	<1	---	---
Titanium	ppm ASTM D5185m	<1	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >20	6	---	---
Lead	ppm ASTM D5185m >40	7	---	---
Copper	ppm ASTM D5185m >330	24	---	---
Tin	ppm ASTM D5185m >15	10	---	---
Vanadium	ppm ASTM D5185m	<1	---	---
Cadmium	ppm ASTM D5185m	<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	37	---	---
Barium	ppm ASTM D5185m 5	<1	---	---
Molybdenum	ppm ASTM D5185m 37	42	---	---
Manganese	ppm ASTM D5185m	<1	---	---
Magnesium	ppm ASTM D5185m 12	11	---	---
Calcium	ppm ASTM D5185m 3250	3285	---	---
Phosphorus	ppm ASTM D5185m 50	7	---	---
Zinc	ppm ASTM D5185m 5	0	---	---
Sulfur	ppm ASTM D5185m 5750	3632	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	10	---	---
Sodium	ppm ASTM D5185m	42	---	---
Potassium	ppm ASTM D5185m >20	3	---	---

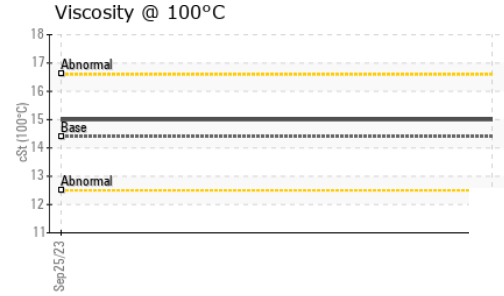
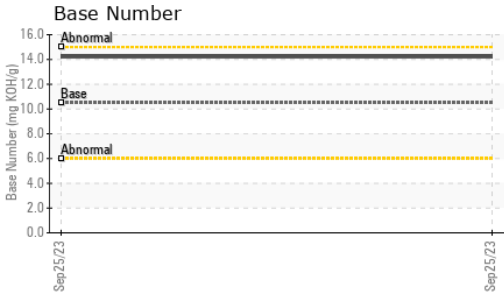
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.8	---	---
Nitration	Abs/cm *ASTM D7624 >20	9.0	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	15.9	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	8.7	---	---
Base Number (BN)	mg KOH/g ASTM D2896 10.5	14.22	---	---

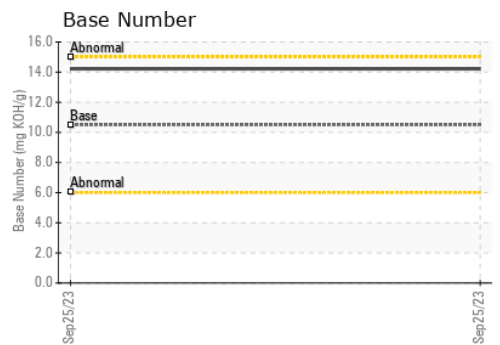
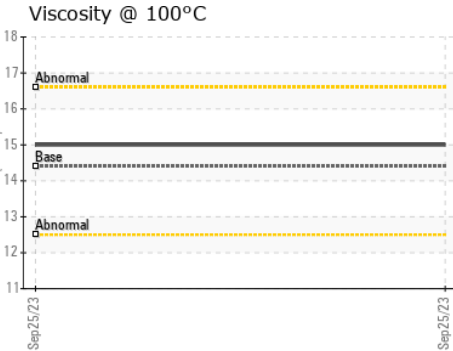
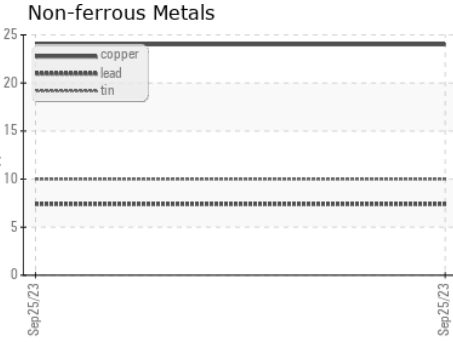
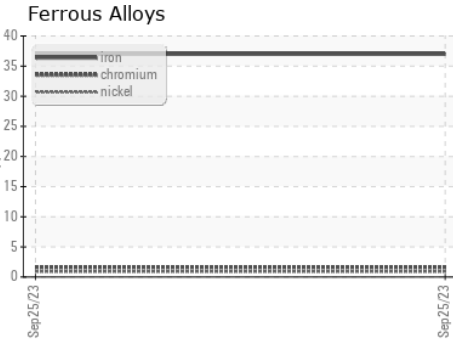
OIL ANALYSIS REPORT



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	14.4	15.0	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA05995906 **Received** : 01 Nov 2023
Lab Number : **05995906** **Diagnosed** : 02 Nov 2023
Unique Number : 10724266 **Diagnostician** : Wes Davis
Test Package : IND 2

U.S. SUGAR CORP
 1731 S W.C. OWEN AVENUE
 CLEWISTON, FL
 US 33440-3032
 Contact: MAT RUDD
 mrudd@ussugar.com

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)