

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
HM-02
 Component
Diesel Engine
 Fluid
DISEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. 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	PCA0113126	---	---
Sample Date	Client Info	20 Dec 2023	---	---
Machine Age	hrs Client Info	4579	---	---
Oil Age	hrs Client Info	250	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >100	8	---	---
Chromium ppm	ASTM D5185m >20	<1	---	---
Nickel ppm	ASTM D5185m >4	<1	---	---
Titanium ppm	ASTM D5185m	1	---	---
Silver ppm	ASTM D5185m >3	0	---	---
Aluminum ppm	ASTM D5185m >20	1	---	---
Lead ppm	ASTM D5185m >40	2	---	---
Copper ppm	ASTM D5185m >330	<1	---	---
Tin ppm	ASTM D5185m >15	<1	---	---
Vanadium ppm	ASTM D5185m	<1	---	---
Cadmium ppm	ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 250	5	---	---
Barium ppm	ASTM D5185m 10	0	---	---
Molybdenum ppm	ASTM D5185m 100	45	---	---
Manganese ppm	ASTM D5185m	<1	---	---
Magnesium ppm	ASTM D5185m 450	755	---	---
Calcium ppm	ASTM D5185m 3000	940	---	---
Phosphorus ppm	ASTM D5185m 1150	851	---	---
Zinc ppm	ASTM D5185m 1350	1050	---	---
Sulfur ppm	ASTM D5185m 4250	2541	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	3	---	---
Sodium ppm	ASTM D5185m >158	3	---	---
Potassium ppm	ASTM D5185m >20	1	---	---
Fuel %	ASTM D3524 >5	▲ 7.8	---	---

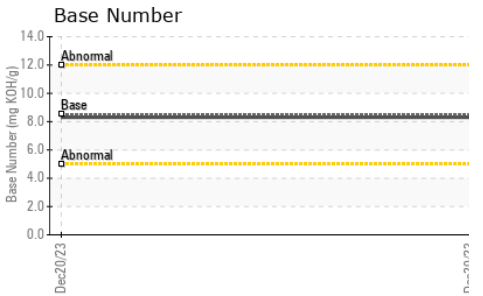
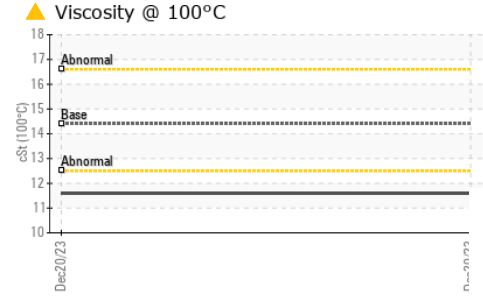
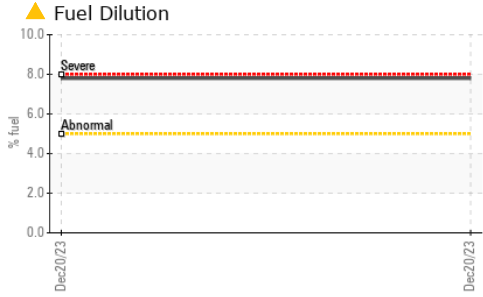
INFRA-RED

method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	0.3	---	---
Nitration Abs/cm	*ASTM D7624 >20	8.8	---	---
Sulfation Abs/.1mm	*ASTM D7415 >30	19.0	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm	*ASTM D7414 >25	15.5	---	---
Base Number (BN) mg KOH/g	ASTM D2896 8.5	8.3	---	---

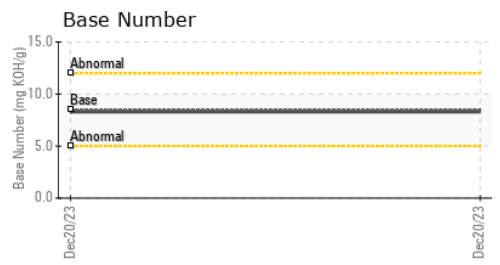
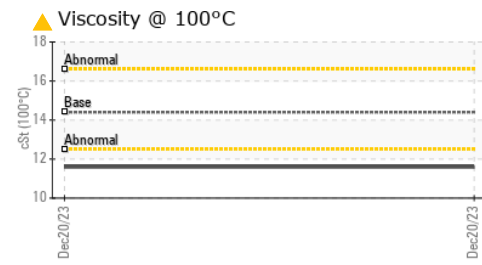
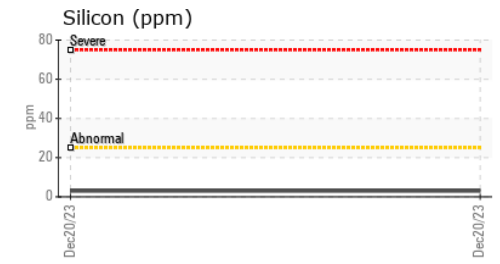
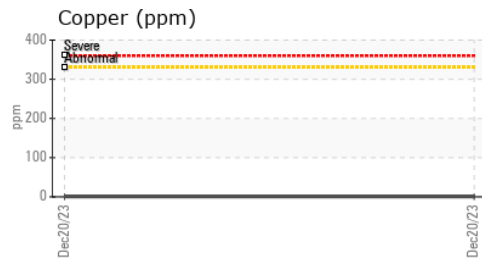
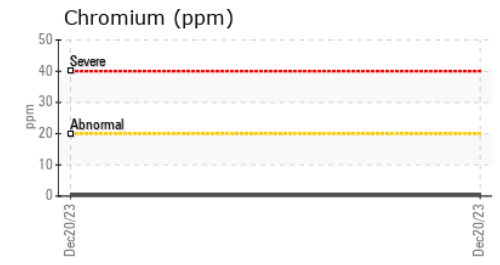
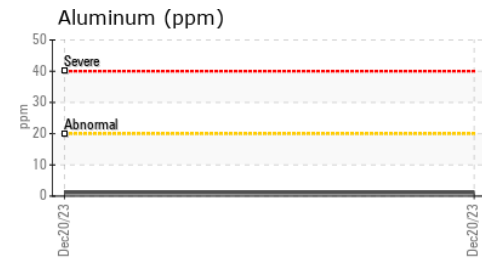
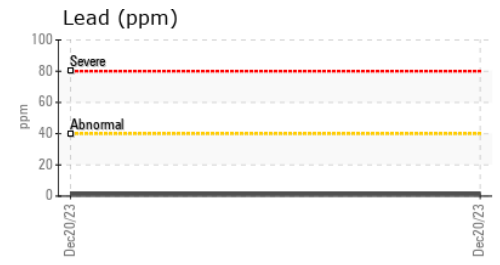
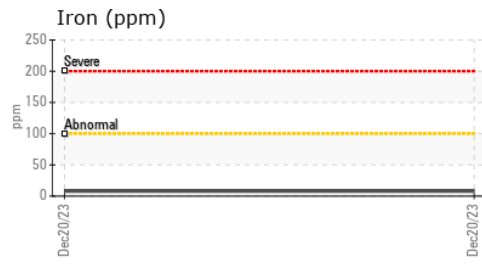
OIL ANALYSIS REPORT



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 ▲ 11.6	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0113126 **Received** : 01 Feb 2024
Lab Number : 06076481 **Tested** : 05 Feb 2024
Unique Number : 10858572 **Diagnosed** : 05 Feb 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)