

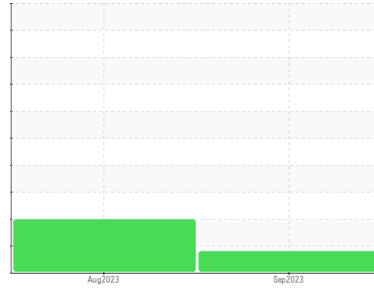


PROBLEM SUMMARY



Machine Id
CATERPILLAR 745D 13397 (S/N 3T605921)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

Sample Rating Trend

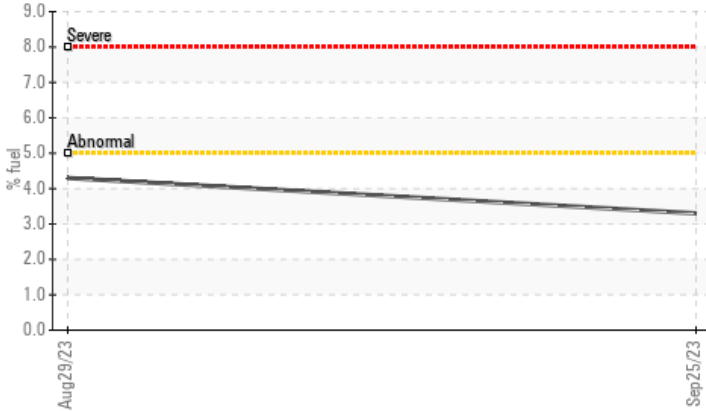


FUEL



COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

PROBLEMATIC TEST RESULTS

Sample Status				MARGINAL	ABNORMAL	---
Fuel	%	ASTM D3524	>5	▲ 3.3	▲ 4.3	---

Customer Id: TRANEW
 Sample No.: WC0831360
 Lab Number: 05965052
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

29 Aug 2023 Diag: Wes Davis

FUEL



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a components first oil change. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

view report



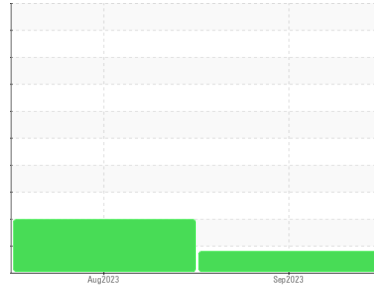


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR 745D 13397 (S/N 3T605921)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

Sample Rating Trend



FUEL



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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		WC0831360	WC0837032	---
Sample Date	Client Info		25 Sep 2023	29 Aug 2023	---
Machine Age	hrs	Client Info	1000	621	---
Oil Age	hrs	Client Info	379	621	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			MARGINAL	ABNORMAL	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	19	46	---
Chromium	ppm	ASTM D5185m >20	<1	1	---
Nickel	ppm	ASTM D5185m >2	0	0	---
Titanium	ppm	ASTM D5185m >2	0	<1	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >25	2	2	---
Lead	ppm	ASTM D5185m >40	2	13	---
Copper	ppm	ASTM D5185m >330	339	839	---
Tin	ppm	ASTM D5185m >15	1	3	---
Vanadium	ppm	ASTM D5185m	0	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 1	2	18	---
Barium	ppm	ASTM D5185m 1	0	0	---
Molybdenum	ppm	ASTM D5185m 60	60	46	---
Manganese	ppm	ASTM D5185m 1	<1	2	---
Magnesium	ppm	ASTM D5185m 1010	823	▲ 646	---
Calcium	ppm	ASTM D5185m 1070	1111	▲ 1582	---
Phosphorus	ppm	ASTM D5185m 1150	964	995	---
Zinc	ppm	ASTM D5185m 1270	1185	1213	---
Sulfur	ppm	ASTM D5185m 2060	3058	3072	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	15	---
Sodium	ppm	ASTM D5185m	<1	4	---
Potassium	ppm	ASTM D5185m >20	1	2	---
Fuel	%	ASTM D3524 >5	▲ 3.3	▲ 4.3	---

INFRA-RED

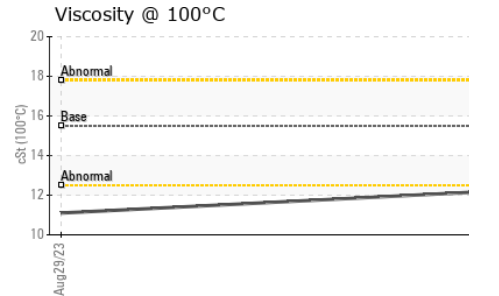
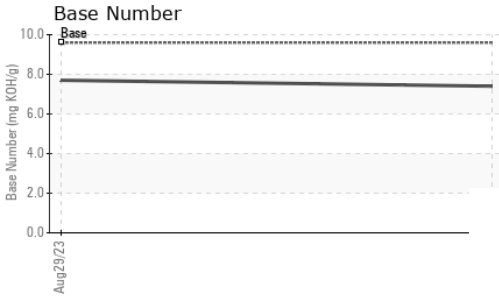
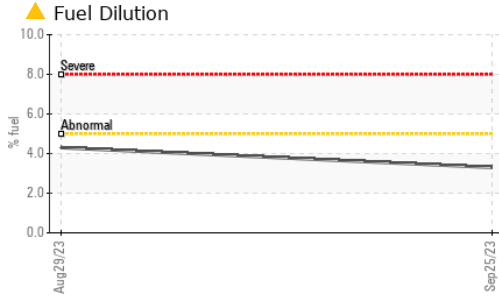
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.4	---
Nitration	Abs/cm	*ASTM D7624 >20	8.3	9.8	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.9	23.5	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.3	21.6	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.6	7.4	7.7	---



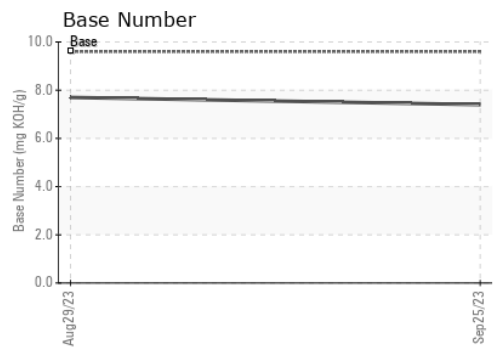
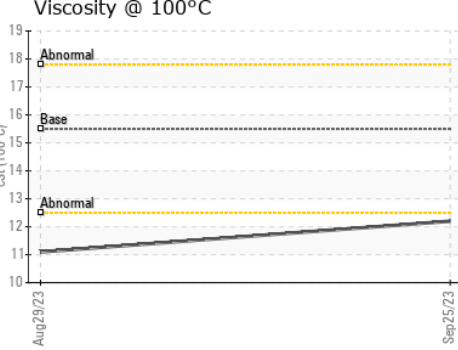
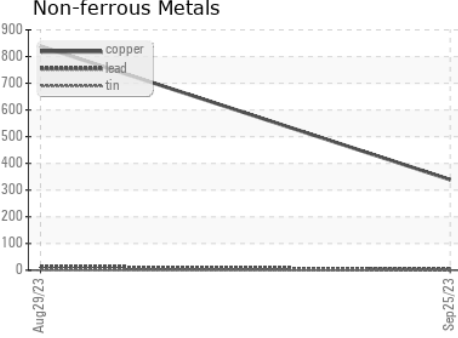
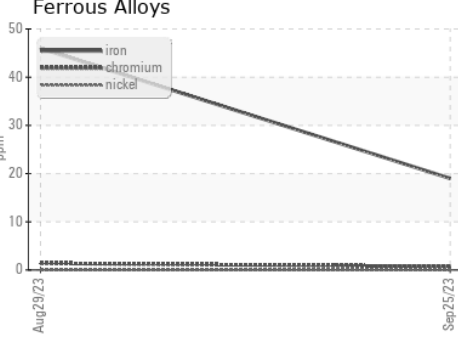
OIL ANALYSIS REPORT



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	15.5	12.2	▲ 11.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0831360 **Received** : 29 Sep 2023
Lab Number : 05965052 **Diagnosed** : 03 Oct 2023
Unique Number : 10671603 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)