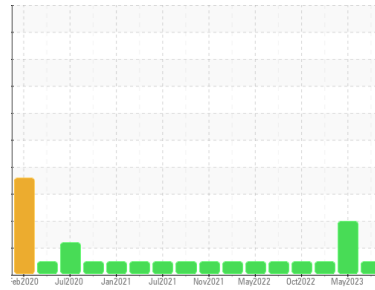


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
1926724

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

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		PCA0088734	PCA0099507	PCA0076982
Sample Date	Client Info		13 Aug 2023	29 May 2023	20 Mar 2023
Machine Age	mls	Client Info	339364	317882	299734
Oil Age	mls	Client Info	20000	40000	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	20	47	37
Chromium	ppm	ASTM D5185m >20	<1	1	<1
Nickel	ppm	ASTM D5185m >4	0	1	<1
Titanium	ppm	ASTM D5185m	1	4	5
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	25	▲ 36	2
Lead	ppm	ASTM D5185m >40	1	3	2
Copper	ppm	ASTM D5185m >330	4	8	7
Tin	ppm	ASTM D5185m >15	<1	1	1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	0	4	<1
Barium	ppm	ASTM D5185m 0	0	0	2
Molybdenum	ppm	ASTM D5185m 50	60	60	56
Manganese	ppm	ASTM D5185m 0	<1	1	<1
Magnesium	ppm	ASTM D5185m 950	897	972	819
Calcium	ppm	ASTM D5185m 1050	1099	1158	1127
Phosphorus	ppm	ASTM D5185m 995	1007	1023	928
Zinc	ppm	ASTM D5185m 1180	1211	1287	1171
Sulfur	ppm	ASTM D5185m 2600	3133	3328	2598

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	5
Sodium	ppm	ASTM D5185m	6	18	12
Potassium	ppm	ASTM D5185m >20	60	▲ 90	4

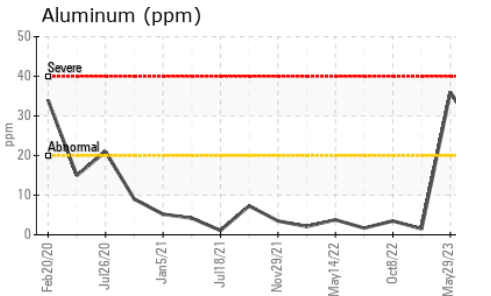
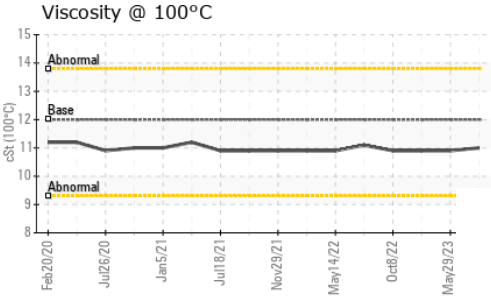
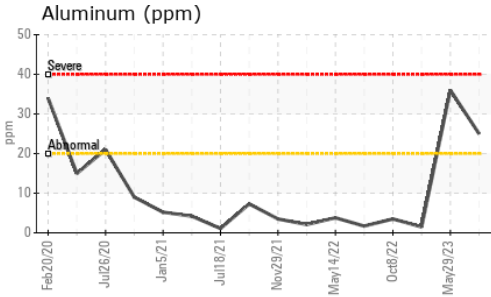
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.8	0.8
Nitration	Abs/cm	*ASTM D7624 >20	8.8	11.4	10.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.8	25.3	22.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.2	21.6	18.9
Base Number (BN)	mg KOH/g	ASTM D2896	7.0	5.3	4.2

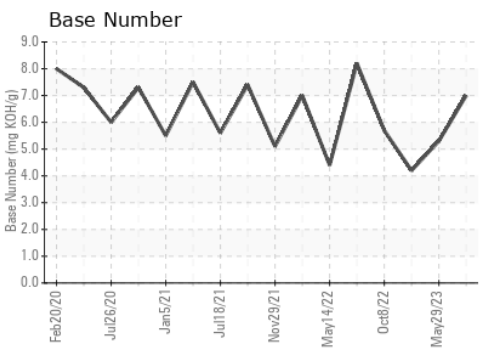
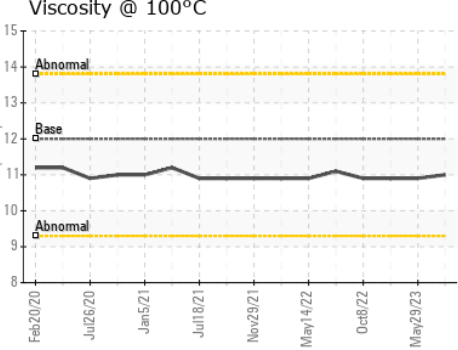
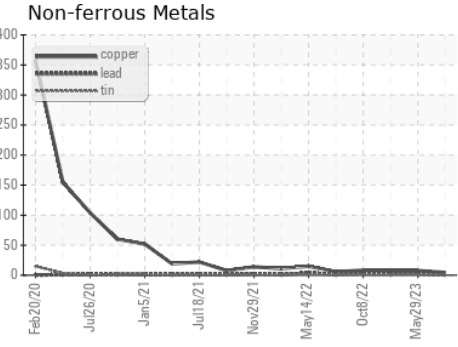
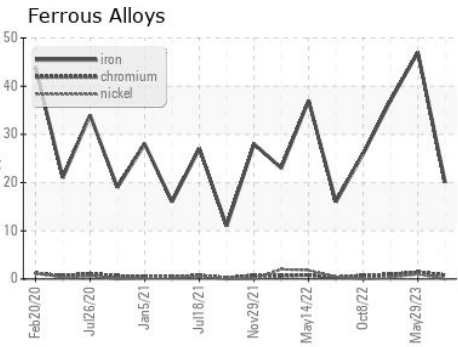
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	12.00	11.0	10.9	10.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0088734 **Received** : 23 Aug 2023
Lab Number : **05932606** **Diagnosed** : 24 Aug 2023
Unique Number : 10617877 **Diagnostician** : Wes Davis
Test Package : FLEET

PERDUE FARMS - SALISBURY
 7036 ZION CHURCH ROAD
 SALISBURY, MD
 US 21802
 Contact: RICHARD O'NEAL
 richard.oneal@perdue.com
 T: (410)543-3628
 F: (410)341-2164

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)