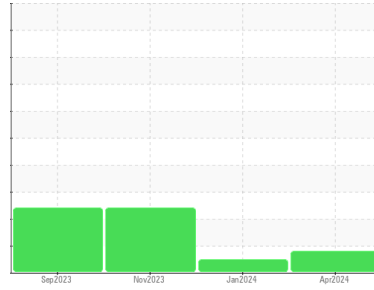


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id

2227061

Component

Diesel Engine

Fluid

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Valve wear is indicated. All other 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		PCA0124563	PCA0113264	PCA0109366
Sample Date	Client Info		14 Apr 2024	08 Jan 2024	06 Nov 2023
Machine Age	mls	Client Info	86361	64874	43386
Oil Age	mls	Client Info	45000	21388	43386
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	38	17	46
Chromium	ppm	ASTM D5185m >20	<1	<1	1
Nickel	ppm	ASTM D5185m >4	▲ 7	1	2
Titanium	ppm	ASTM D5185m	8	<1	<1
Silver	ppm	ASTM D5185m >3	2	4	8
Aluminum	ppm	ASTM D5185m >20	10	7	31
Lead	ppm	ASTM D5185m >40	0	6	<1
Copper	ppm	ASTM D5185m >330	228	381	▲ 350
Tin	ppm	ASTM D5185m >15	1	2	4
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	9	7	48
Barium	ppm	ASTM D5185m 0	0	0	13
Molybdenum	ppm	ASTM D5185m 50	61	57	106
Manganese	ppm	ASTM D5185m 0	2	1	3
Magnesium	ppm	ASTM D5185m 950	930	830	697
Calcium	ppm	ASTM D5185m 1050	1263	1072	1425
Phosphorus	ppm	ASTM D5185m 995	997	906	730
Zinc	ppm	ASTM D5185m 1180	1226	1023	889
Sulfur	ppm	ASTM D5185m 2600	2767	2802	2302

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	9	▲ 49
Sodium	ppm	ASTM D5185m	4	3	2
Potassium	ppm	ASTM D5185m >20	21	16	83

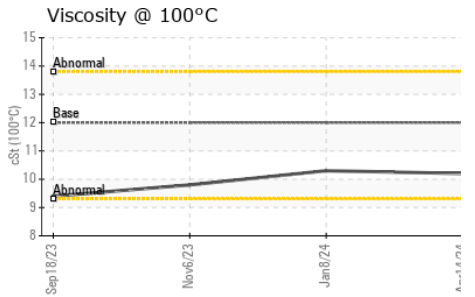
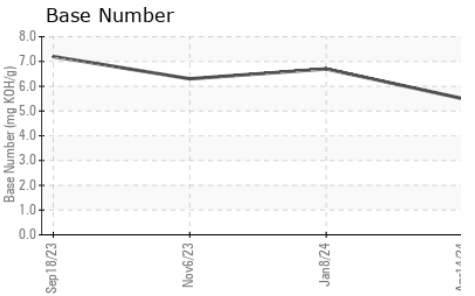
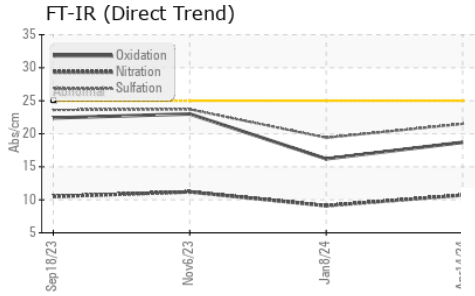
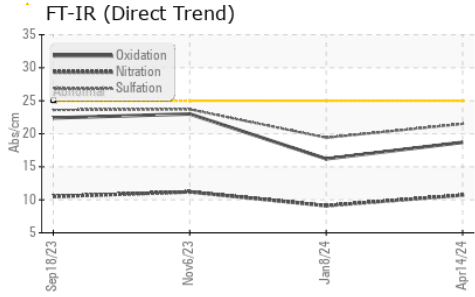
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	10.7	9.1	11.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.5	19.4	23.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.7	16.2	23.0
Base Number (BN)	mg KOH/g	ASTM D2896	5.5	6.7	6.3

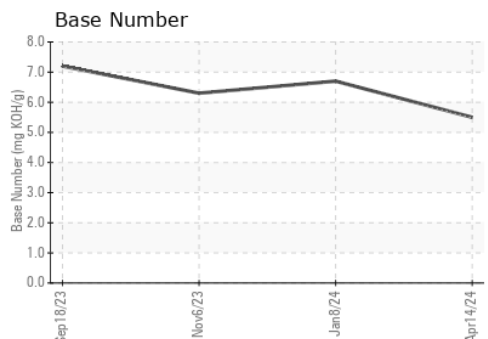
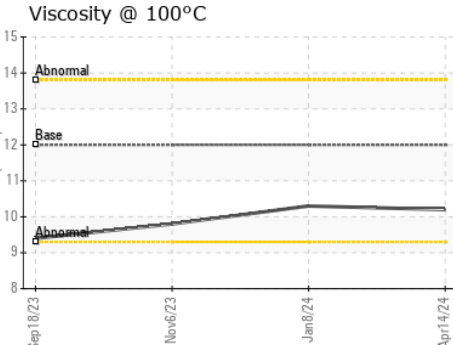
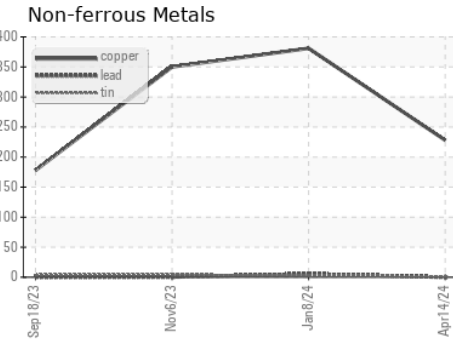
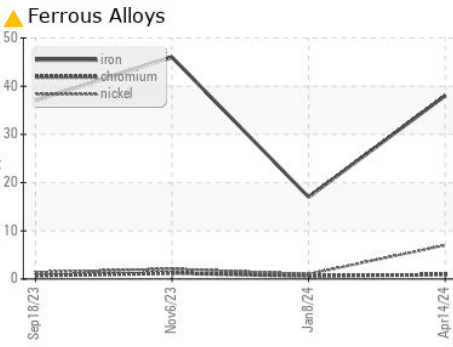
OIL ANALYSIS REPORT



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	10.2	10.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0124563
Lab Number : 06219391
Unique Number : 11097588
Test Package : FLEET
Received : 25 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Don Baldrige

PERDUE FARMS - GEORGETOWN
 20621 SAVANAH RD
 GEORGETOWN, DE
 US 19947
 Contact: ROBERT LOCKWOOD
 Robert.Lockwood@Perdue.com

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)