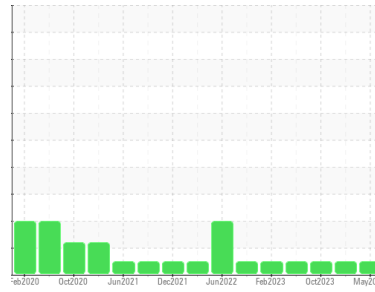


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
1926725
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (35 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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		PCA0127245	PCA0115456	PCA0107395
Sample Date	Client Info		12 May 2024	31 Dec 2023	04 Oct 2023
Machine Age	mls	Client Info	380986	362350	0
Oil Age	mls	Client Info	21000	40641	20000
Oil Changed	Client Info		Not Changed	Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<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	45	66	62
Chromium	ppm	ASTM D5185m >20	<1	1	1
Nickel	ppm	ASTM D5185m >2	<1	<1	<1
Titanium	ppm	ASTM D5185m	36	3	3
Silver	ppm	ASTM D5185m >2	<1	<1	0
Aluminum	ppm	ASTM D5185m >25	33	6	6
Lead	ppm	ASTM D5185m >40	<1	4	1
Copper	ppm	ASTM D5185m >330	7	7	9
Tin	ppm	ASTM D5185m >15	0	2	2
Vanadium	ppm	ASTM D5185m	<1	<1	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	16	<1	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 50	30	50	55
Manganese	ppm	ASTM D5185m 0	1	1	<1
Magnesium	ppm	ASTM D5185m 950	678	826	893
Calcium	ppm	ASTM D5185m 1050	1399	1044	1066
Phosphorus	ppm	ASTM D5185m 995	1020	940	1004
Zinc	ppm	ASTM D5185m 1180	1213	1113	1220
Sulfur	ppm	ASTM D5185m 2600	3770	2646	2516

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	6	6
Sodium	ppm	ASTM D5185m	10	25	25
Potassium	ppm	ASTM D5185m >20	83	8	9

INFRA-RED

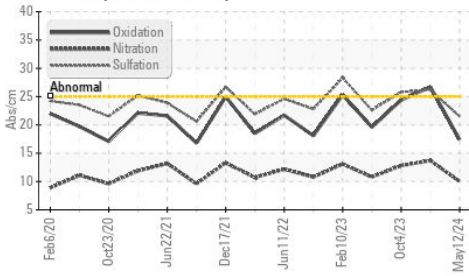
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.8	0.7
Nitration	Abs/cm	*ASTM D7624 >20	10.0	13.7	12.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.5	26.2	25.8

FLUID DEGRADATION

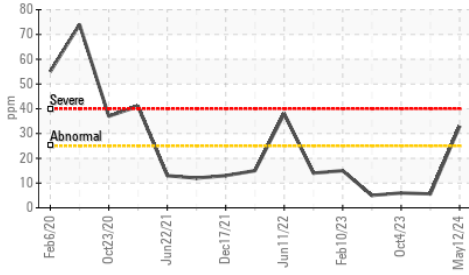
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.4	26.7	24.4
Base Number (BN)	mg KOH/g	ASTM D2896	5.8	3.5	3.7

OIL ANALYSIS REPORT

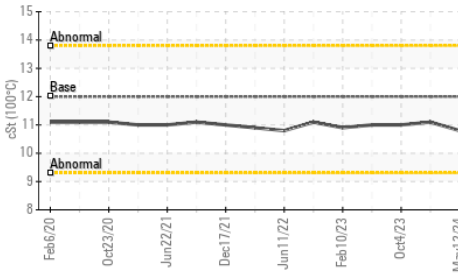
FT-IR (Direct Trend)



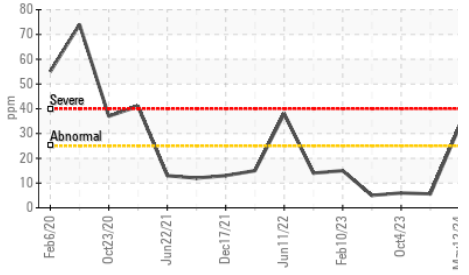
Aluminum (ppm)



Viscosity @ 100°C



Aluminum (ppm)

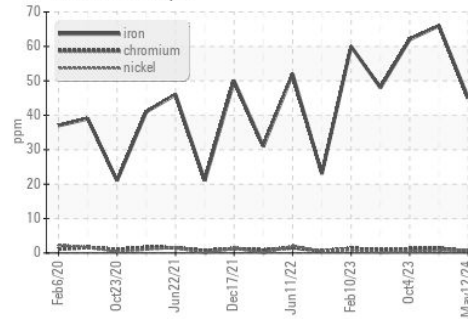


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

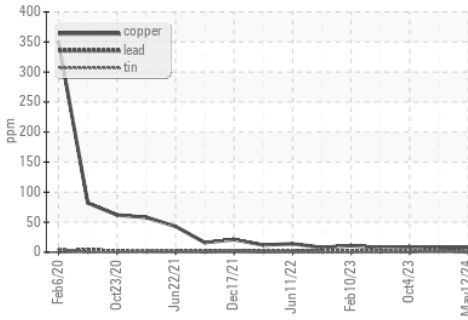
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.8	11.1

GRAPHS

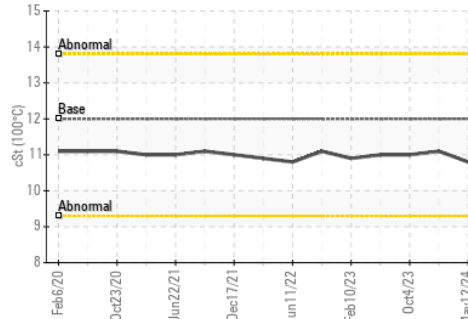
Ferrous Alloys



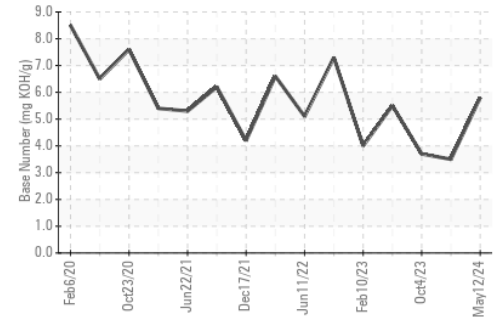
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0127245
Lab Number : 06219420
Unique Number : 11097617
Test Package : FLEET

Received : 25 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

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)

T:
F: