

Machine Id
2126971
 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

Metal levels are typical for a new component breaking in.

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	PCA0112394	PCA0108167	PCA0101675
Sample Date	Client Info	14 Nov 2023	25 Oct 2023	15 Aug 2023
Machine Age	mls Client Info	57348	53739	38761
Oil Age	mls Client Info	38613	33739	20026
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		NORMAL	NORMAL	NORMAL

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	25	28	17
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>4	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	24	28	22
Lead	ppm	ASTM D5185m	>40	1	2	1
Copper	ppm	ASTM D5185m	>330	258	292	213
Tin	ppm	ASTM D5185m	>15	2	3	2
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	<1	<1

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m	2	7	6	14
Barium	ppm	ASTM D5185m	0	0	12	0
Molybdenum	ppm	ASTM D5185m	50	66	69	65
Manganese	ppm	ASTM D5185m	0	1	2	1
Magnesium	ppm	ASTM D5185m	950	909	915	870
Calcium	ppm	ASTM D5185m	1050	1067	1142	1080
Phosphorus	ppm	ASTM D5185m	995	927	934	958
Zinc	ppm	ASTM D5185m	1180	1142	1162	1153
Sulfur	ppm	ASTM D5185m	2600	2934	2849	3410

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>25	9	10	9
Sodium	ppm	ASTM D5185m		3	<1	4
Potassium	ppm	ASTM D5185m	>20	65	81	59

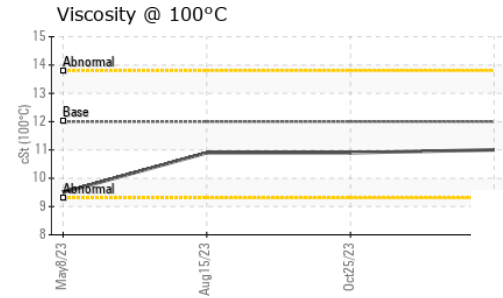
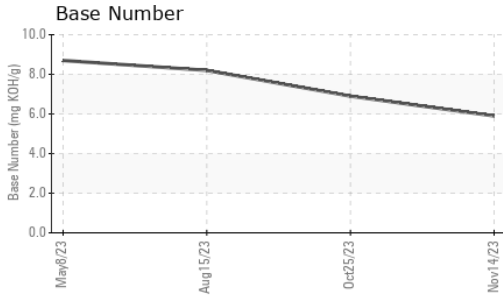
INFRA-RED method limit/base current history1 history2

Soot %	%	*ASTM D7844	>3	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.0	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	20.4	19.8

FLUID DEGRADATION method limit/base current history1 history2

Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	16.4	15.5
Base Number (BN)	mg KOH/g	ASTM D2896		5.9	6.9	8.2

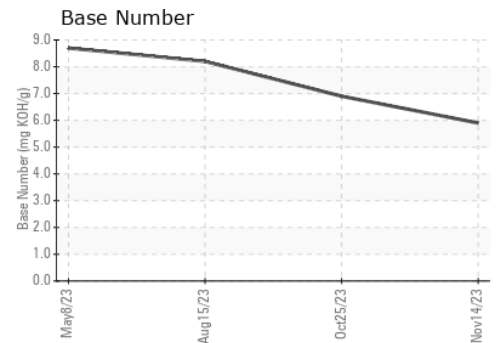
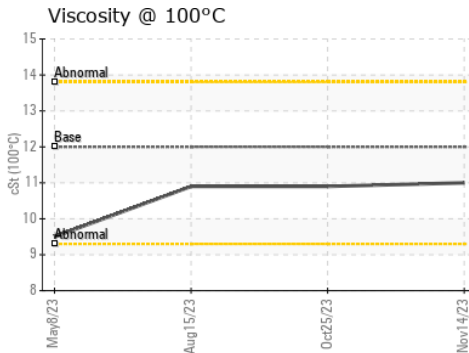
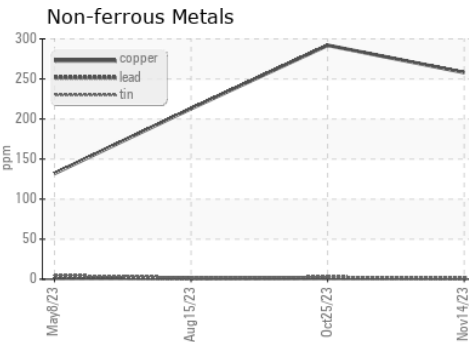
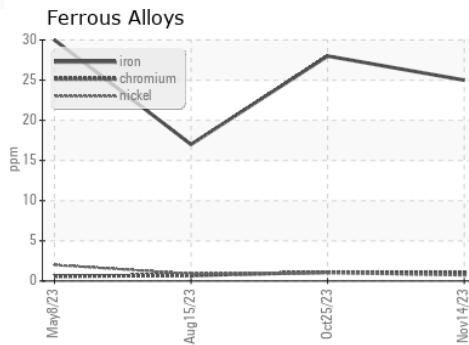
OIL ANALYSIS REPORT



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	11.0	10.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0112394 **Received** : 15 Dec 2023
Lab Number : 06036654 **Diagnosed** : 18 Dec 2023
Unique Number : 10791883 **Diagnostician** : Wes Davis
Test Package : FLEET

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)

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F: