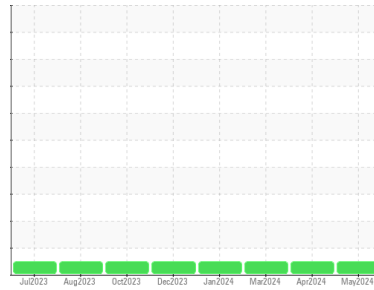


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2227012
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- 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

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			PCA0123203	PCA0106376	PCA0118427
Sample Date	Client Info			24 May 2024	06 Apr 2024	02 Mar 2024
Machine Age	mls	Client Info		190479	167898	152282
Oil Age	mls	Client Info		15000	30000	15000
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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	10	20	11
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	2	<1
Titanium	ppm	ASTM D5185m		16	25	22
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	5	8	7
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0

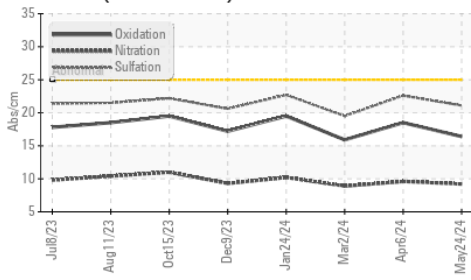
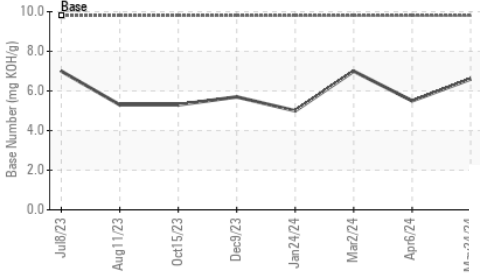
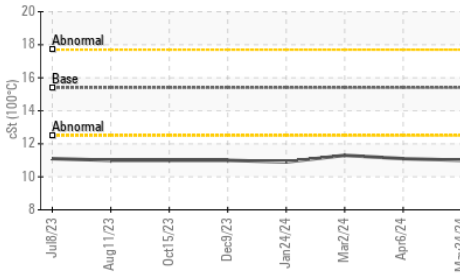
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	7	15
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	46	44	42
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	794	780	776
Calcium	ppm	ASTM D5185m	1070	1321	1290	1187
Phosphorus	ppm	ASTM D5185m	1150	1027	959	987
Zinc	ppm	ASTM D5185m	1270	1204	1174	1176
Sulfur	ppm	ASTM D5185m	2060	3464	3236	3525

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	5	4
Sodium	ppm	ASTM D5185m		2	2	1
Potassium	ppm	ASTM D5185m	>20	3	4	4
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.2	9.6	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	22.6	19.5

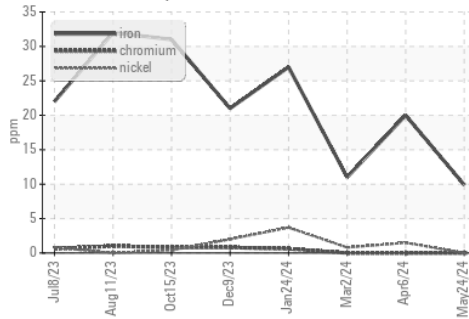
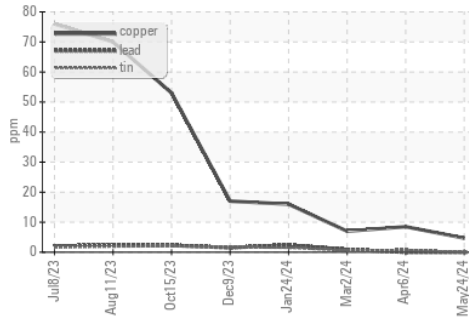
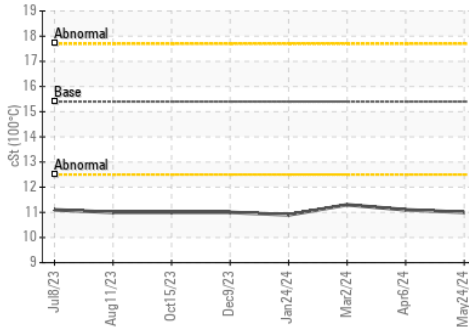
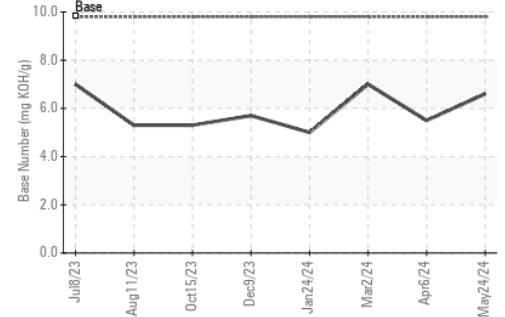
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	18.5	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.6	5.5	7.0

OIL ANALYSIS REPORT

FT-IR (Direct Trend)

Base Number

Viscosity @ 100°C


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

PARAMETER	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	11.0	11.1	11.3

GRAPHS
Ferrous Alloys

Non-ferrous Metals

Viscosity @ 100°C

Base Number


Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0123203

Lab Number : 06197272

Unique Number : 11059395

Test Package : FLEET (Additional Tests : FuelDilution)

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)

Received : 03 Jun 2024

Tested : 04 Jun 2024

Diagnosed : 04 Jun 2024 - Sean Felton

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