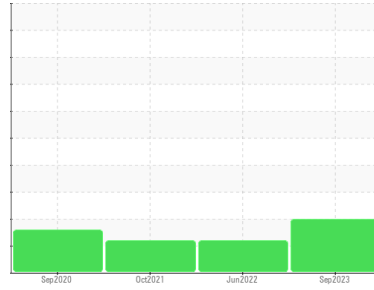


PROBLEM SUMMARY

Sample Rating Trend



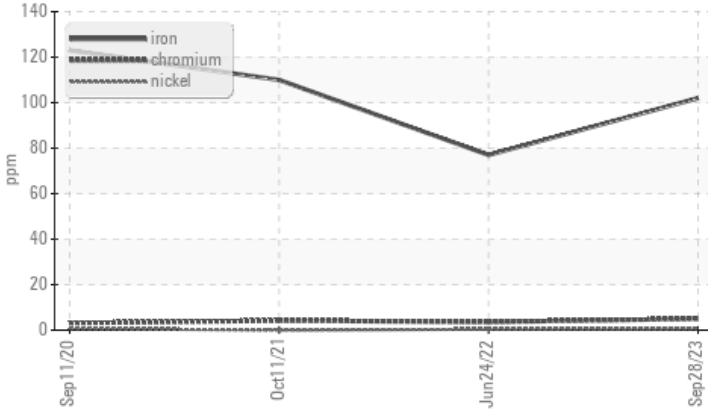
DEGRADATION



Machine Id
2144
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



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.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm ASTM D5185m	>100 ▲ 102	77	110
Base Number (BN)	mg KOH/g ASTM D2896	▲ 1.9	▲ 3.6	▲ 2.4

Customer Id: MIDFAR
 Sample No.: PCA0088618
 Lab Number: 06013683
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

24 Jun 2022 Diag: Jonathan Hester

DEGRADATION



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN level is low. The condition of the oil is acceptable for the time in service.

view report



11 Oct 2021 Diag: Jonathan Hester

DEGRADATION



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN level is low. The condition of the oil is acceptable for the time in service.

view report



11 Sep 2020 Diag: Don Baldrige

DIRT



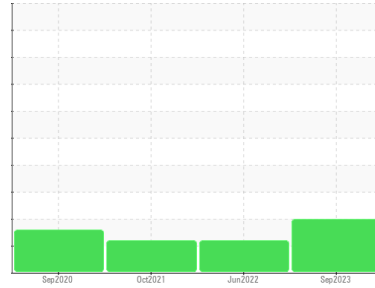
No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
2144
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

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

Cylinder, crank, or cam shaft 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 level is low. The oil is no longer serviceable.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	PCA0088618	PCA0051918	PCA0051896	
Sample Date	Client Info	28 Sep 2023	24 Jun 2022	11 Oct 2021	
Machine Age	mls	Client Info	79357	62052	44101
Oil Age	mls	Client Info	79357	17951	12494
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		ABNORMAL	ABNORMAL	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	▲ 102	77	110
Chromium	ppm ASTM D5185m >20	5	4	4
Nickel	ppm ASTM D5185m >4	<1	<1	0
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	0	<1	<1
Aluminum	ppm ASTM D5185m >20	17	11	12
Lead	ppm ASTM D5185m >40	2	2	2
Copper	ppm ASTM D5185m >330	6	4	9
Tin	ppm ASTM D5185m >15	1	3	3
Antimony	ppm ASTM D5185m	---	---	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	0	5	6
Barium	ppm ASTM D5185m 0	9	0	0
Molybdenum	ppm ASTM D5185m 50	67	65	61
Manganese	ppm ASTM D5185m 0	2	2	4
Magnesium	ppm ASTM D5185m 950	971	1001	972
Calcium	ppm ASTM D5185m 1050	1187	1264	1168
Phosphorus	ppm ASTM D5185m 995	1029	1023	1028
Zinc	ppm ASTM D5185m 1180	1285	1278	1250
Sulfur	ppm ASTM D5185m 2600	3153	3402	2499

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	17	9	18
Sodium	ppm ASTM D5185m	9	10	10
Potassium	ppm ASTM D5185m >20	14	5	7

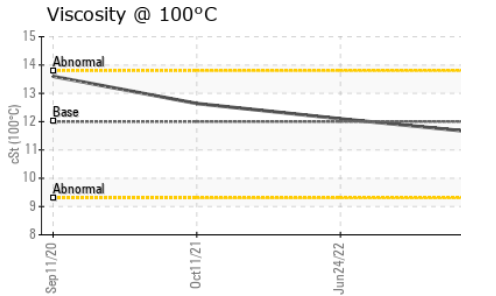
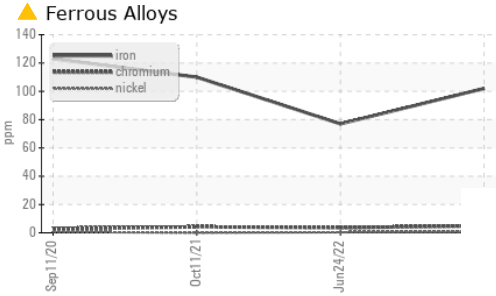
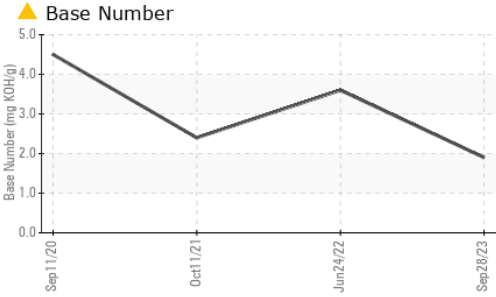
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1	1.2	1.3
Nitration	Abs/cm *ASTM D7624 >20	16.9	17.5	17.4
Sulfation	Abs/.1mm *ASTM D7415 >30	36.8	36.1	38.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	45.5	40.9	44.8
Base Number (BN)	mg KOH/g ASTM D2896	▲ 1.9	▲ 3.6	▲ 2.4

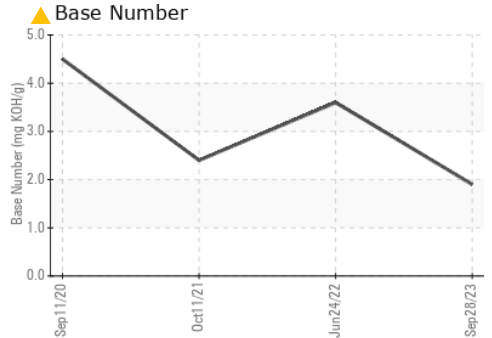
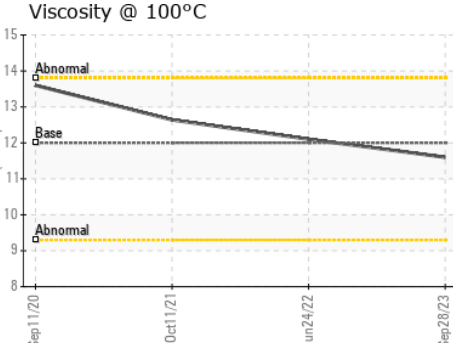
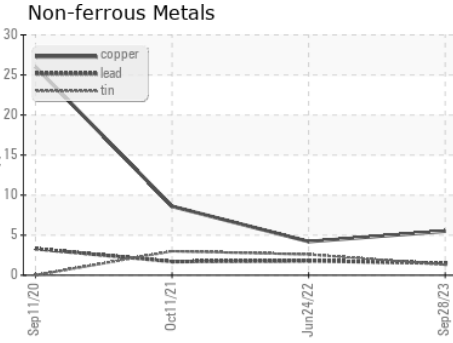
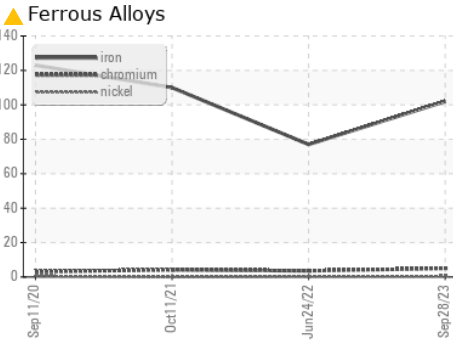
OIL ANALYSIS REPORT



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

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.6	12.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : PCA0088618
 Lab Number : 06013683
 Unique Number : 10752827
 Test Package : FLEET
 Received : 21 Nov 2023
 Diagnosed : 23 Nov 2023
 Diagnostician : Don Baldrige

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 US 55112
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 F: x:

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)