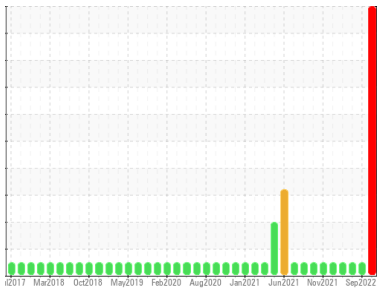
PROBLEM SUMMARY

Area
(TX272543)
Machine Id
3750
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

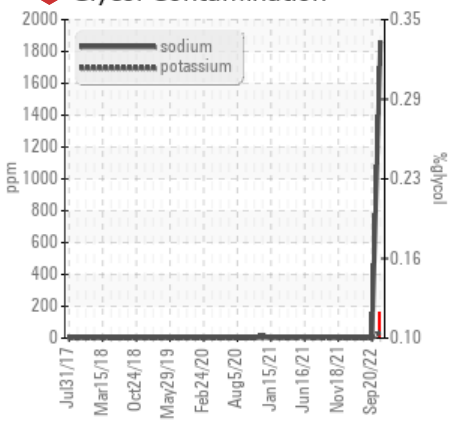
Sample Rating Trend



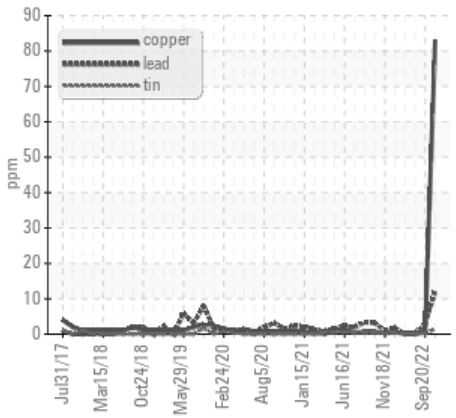
GLYCOL

COMPONENT CONDITION SUMMARY

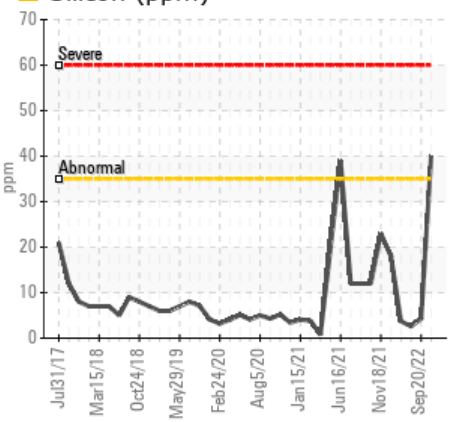
Glycol Contamination



Non-ferrous Metals



Silicon (ppm)



RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. NOTE: High contamination in the sample has limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Lead	ppm	ASTM D5185m	>150	▲ **12**	3	0
Copper	ppm	ASTM D5185m	>90	▲ **83**	<1	<1
Silicon	ppm	ASTM D5185m	>35	▲ **40**	4	3
Potassium	ppm	ASTM D5185m	>20	▲ **36**	1	0
Glycol	%	*ASTM D2982		⬢ **0.12**	NEG	NEG

Customer Id: GFL045
Sample No.: GFL0103896
Lab Number: 06065384
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

20 Sep 2022 Diag: Wes Davis

NORMAL

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 result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

15 Jun 2022 Diag: Don Baldridge

NORMAL

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 result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

20 Apr 2022 Diag: Wes Davis

NORMAL

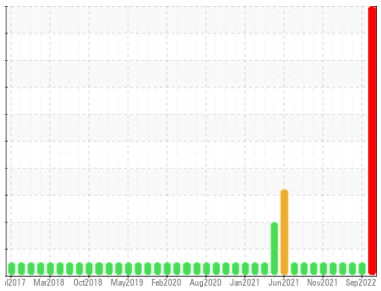
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
(TX272543)
Machine Id
3750
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

Sample Rating Trend



GLYCOL

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. NOTE: High contamination in the sample has limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Wear
Bearing and/or bushing wear is indicated.

Contamination
Sodium and/or potassium levels are high. Test for glycol is positive. Elemental level of silicon (Si) above normal indicating ingress of seal material. There is a high concentration of glycol present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0103896**	GFL0052185	GFL0052224
Sample Date		Client Info		**15 Jan 2024**	20 Sep 2022	15 Jun 2022
Machine Age	hrs	Client Info		**12877**	12877	12877
Oil Age	hrs	Client Info		**12877**	15350	14729
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	**40**	13	4
Chromium	ppm	ASTM D5185m	>5	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**3**	2	<1
Lead	ppm	ASTM D5185m	>150	▲ **12**	3	0
Copper	ppm	ASTM D5185m	>90	▲ **83**	<1	<1
Tin	ppm	ASTM D5185m	>5	**1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**105**	3	7
Barium	ppm	ASTM D5185m	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185m	60	**124**	67	54
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**1021**	898	732
Calcium	ppm	ASTM D5185m	1070	**1090**	1137	983
Phosphorus	ppm	ASTM D5185m	1150	**1137**	1046	867
Zinc	ppm	ASTM D5185m	1270	**1393**	1252	1009
Sulfur	ppm	ASTM D5185m	2060	**3637**	3599	2564

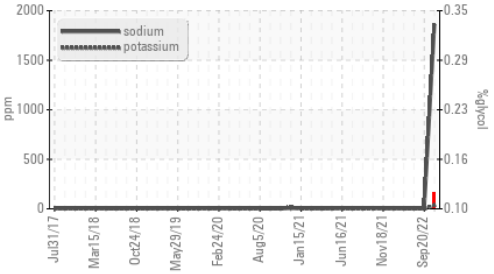
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	▲ **40**	4	3
Sodium	ppm	ASTM D5185m		▲ **1861**	1	3
Potassium	ppm	ASTM D5185m	>20	▲ **36**	1	0
Glycol	%	*ASTM D2982		● **0.12**	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	**0.4**	0.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**15.5**	9.6	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**15.4**	21.8	18.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.1**	17.7	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**---**	9.2	8.6

OIL ANALYSIS REPORT

Glycol Contamination

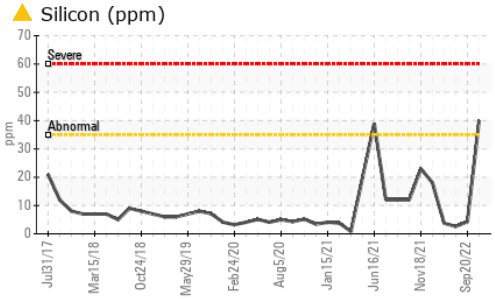


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

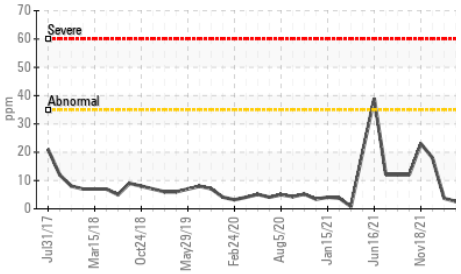
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.7**	13.7	13.9

GRAPHS

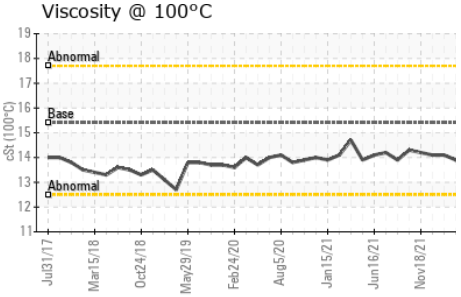
Silicon (ppm)



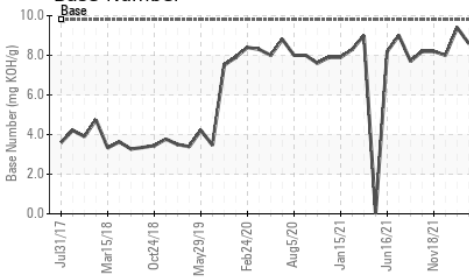
Silicon (ppm)



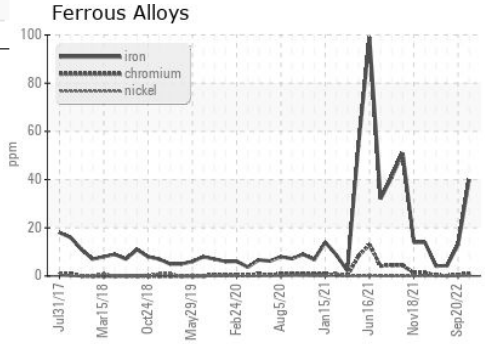
Viscosity @ 100°C



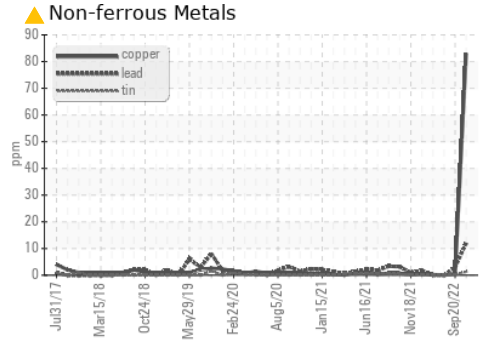
Base Number



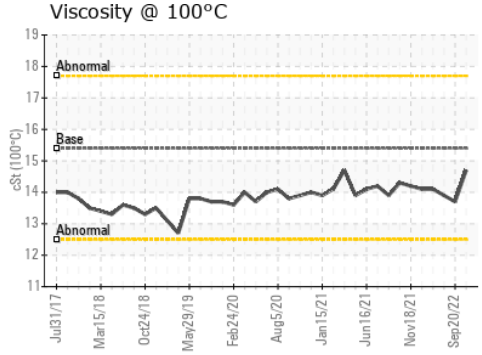
Ferrous Alloys



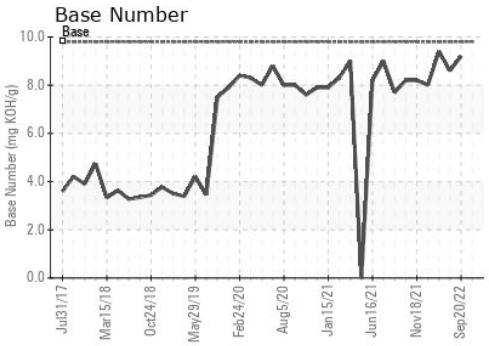
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103896 **Recieved** : 19 Jan 2024
Lab Number : 06065384 **Diagnosed** : 02 Feb 2024
Unique Number : 10836766 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: Glycol)

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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