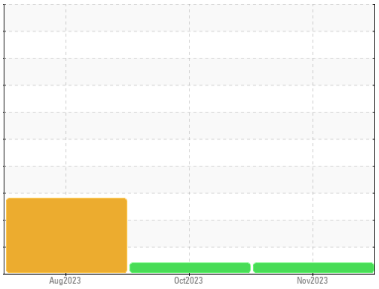
PROBLEM SUMMARY

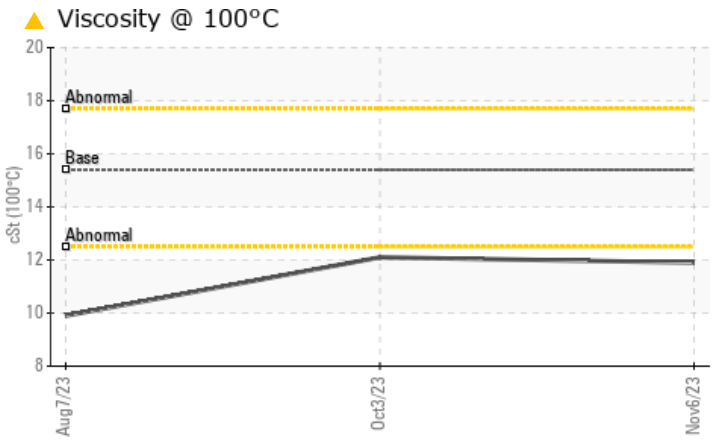
Area
(H917017)
Machine Id
413016
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

Sample Rating Trend



VISCOSITY

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ABNORMAL
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.9**	▲ 12.1	▲ 9.9

Customer Id: GFL097
Sample No.: GFL0098797
Lab Number: 06011371
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

03 Oct 2023 Diag: Don Baldridge

VISCOSITY

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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

07 Aug 2023 Diag: Don Baldridge

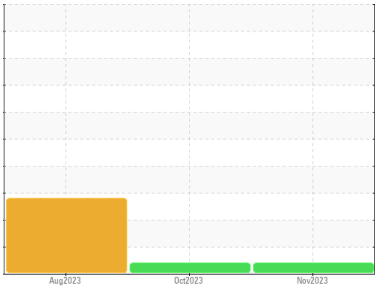
DIRT

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. 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. Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
(H917017)
Machine Id
413016
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0098797**	GFL0073245	GFL0073301
Sample Date		Client Info		**06 Nov 2023**	03 Oct 2023	07 Aug 2023
Machine Age	hrs	Client Info		**1179**	952	600
Oil Age	hrs	Client Info		**575**	352	600
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**ATTENTION**	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	0.4
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	>120	**18**	12	56
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	2
Nickel	ppm	ASTM D5185m	>5	**3**	2	5
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**1**	<1	<1
Aluminum	ppm	ASTM D5185m	>20	**5**	0	▲ 20
Lead	ppm	ASTM D5185m	>40	**0**	0	0
Copper	ppm	ASTM D5185m	>330	**118**	22	113
Tin	ppm	ASTM D5185m	>15	**<1**	<1	3
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

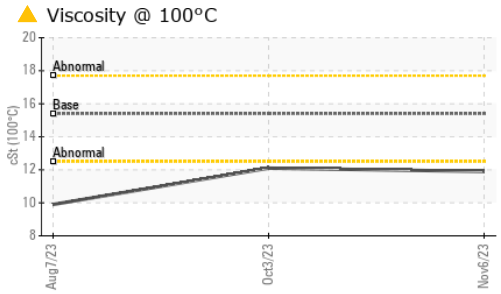
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**13**	20	157
Barium	ppm	ASTM D5185m	0	**0**	<1	<1
Molybdenum	ppm	ASTM D5185m	60	**76**	81	117
Manganese	ppm	ASTM D5185m	0	**<1**	<1	4
Magnesium	ppm	ASTM D5185m	1010	**786**	794	687
Calcium	ppm	ASTM D5185m	1070	**1049**	1077	1423
Phosphorus	ppm	ASTM D5185m	1150	**881**	920	680
Zinc	ppm	ASTM D5185m	1270	**1046**	1114	828
Sulfur	ppm	ASTM D5185m	2060	**2834**	3092	2647

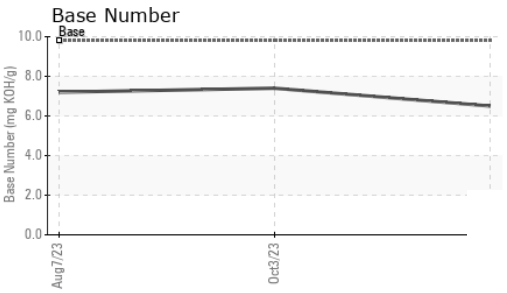
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**15**	19	▲ 91
Sodium	ppm	ASTM D5185m		**1**	0	4
Potassium	ppm	ASTM D5185m	>20	**15**	13	53

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.3**	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**7.9**	6.5	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.0**	17.8	23.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.1**	13.5	22.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.5**	7.4	7.2

OIL ANALYSIS REPORT

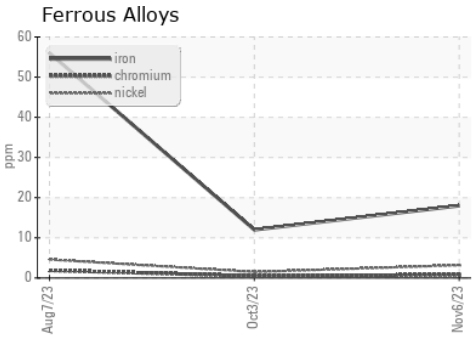


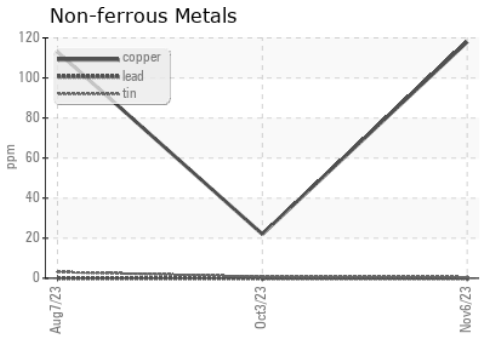


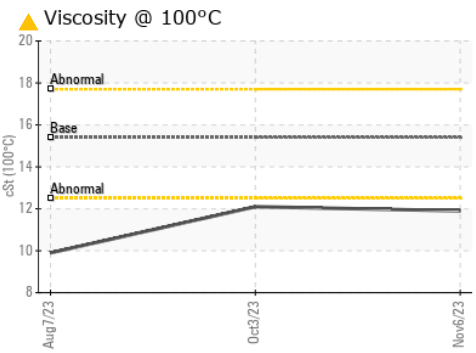
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

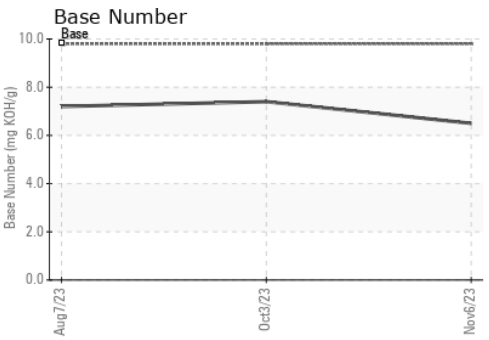
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.9**	▲ 12.1	▲ 9.9

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098797
Lab Number : 06011371
Unique Number : 10750515
Test Package : FLEET

Received : 17 Nov 2023
Diagnosed : 21 Nov 2023
Diagnostician : Sean Felton

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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