



Machine Id
727044-361326
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112214	GFL0098680	GFL0098728
Sample Date		Client Info		15 Mar 2024	23 Feb 2024	08 Jan 2024
Machine Age	hrs	Client Info		1587	1445	1308
Oil Age	hrs	Client Info		150	150	150
Filter Age	hrs	Client Info		150	150	150
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	50	28	12
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	5	2
Lead	ppm	ASTM D5185m	>40	25	14	5
Copper	ppm	ASTM D5185m	>330	6	4	2
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

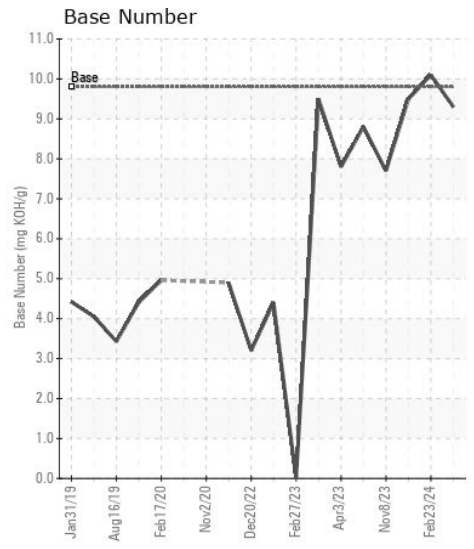
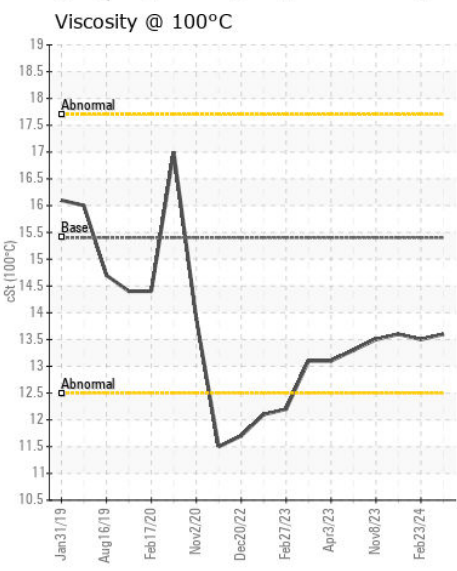
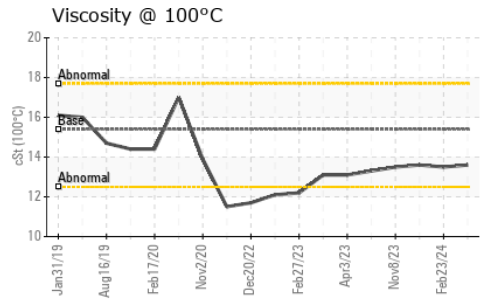
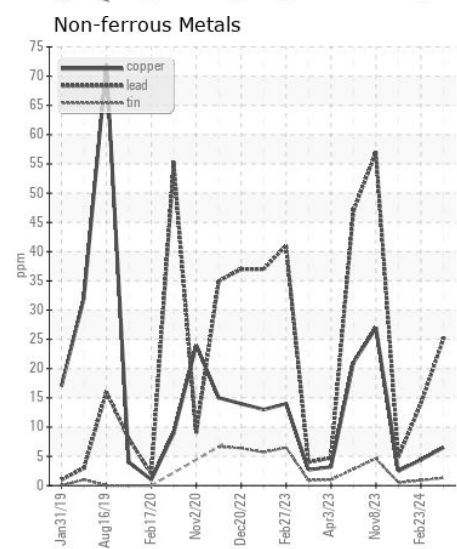
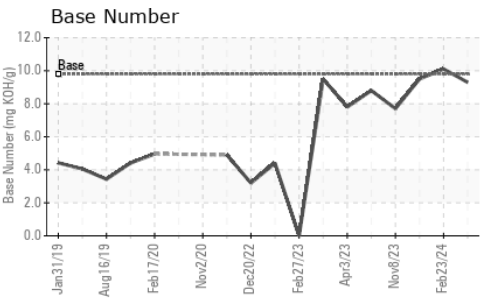
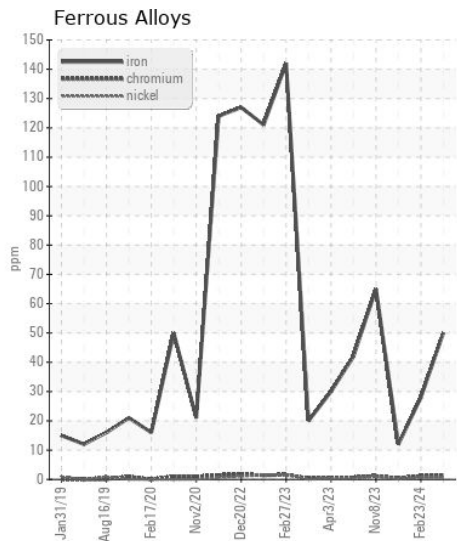
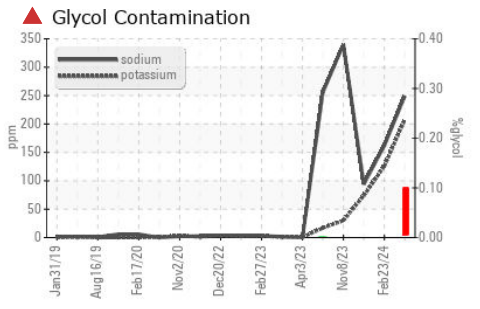
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	11	5	3
Potassium	ppm	ASTM D5185m	>20	▲ 208	▲ 126	● 74
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	NEG	NEG
Soot %	%	*ASTM D7844	>4	2.5	1.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.3	7.2	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	19.3	18.6
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

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		● 249	▲ 162	● 94
Boron	ppm	ASTM D5185m	0	0	1	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	114	90	69
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	878	906	853
Calcium	ppm	ASTM D5185m	1070	996	969	921
Phosphorus	ppm	ASTM D5185m	1150	953	984	962
Zinc	ppm	ASTM D5185m	1270	1167	1213	1103
Sulfur	ppm	ASTM D5185m	2060	3004	3300	3003
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	12.9	12.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.3	10.1	9.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.5	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112214 **Received** : 19 Mar 2024
Lab Number : 06122227 **Tested** : 20 Mar 2024
Unique Number : 10936378 **Diagnosed** : 20 Mar 2024 - Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 829 - Wilco Hauling
 5054 Highway HH
 Hartville, MO
 US 65667
 Contact: James Jones
 james.jones@gflenv.com
 T: (417)349-5006
 F:

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)