



Machine Id
721024-361461
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- 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		GFL0105299	GFL0105101	GFL0105052
Sample Date		Client Info		31 May 2024	15 May 2024	25 Apr 2024
Machine Age	hrs	Client Info		8025	7894	7753
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		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	39	<1	<1
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	<1
Lead	ppm	ASTM D5185m	>40	4	0	0
Copper	ppm	ASTM D5185m	>330	43	0	0
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

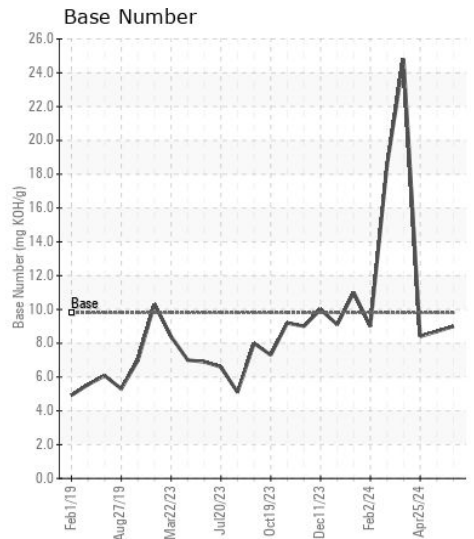
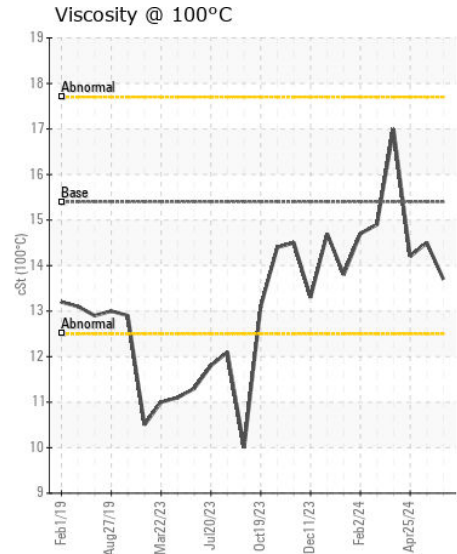
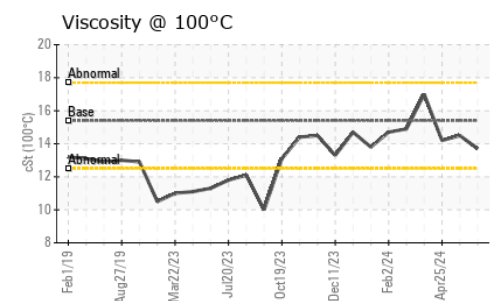
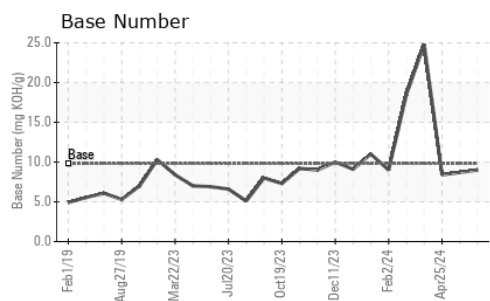
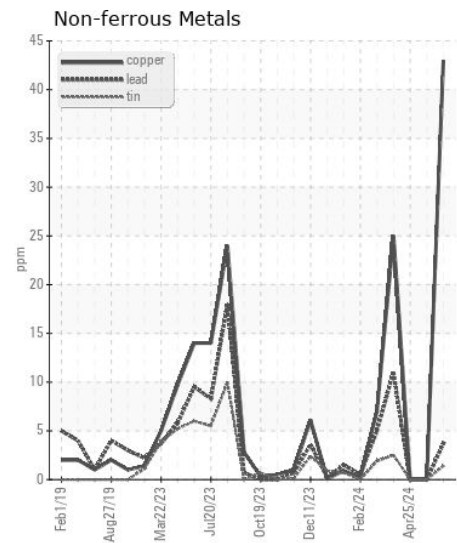
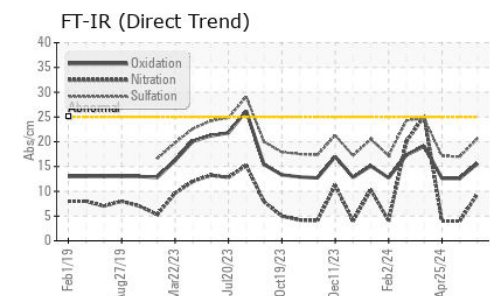
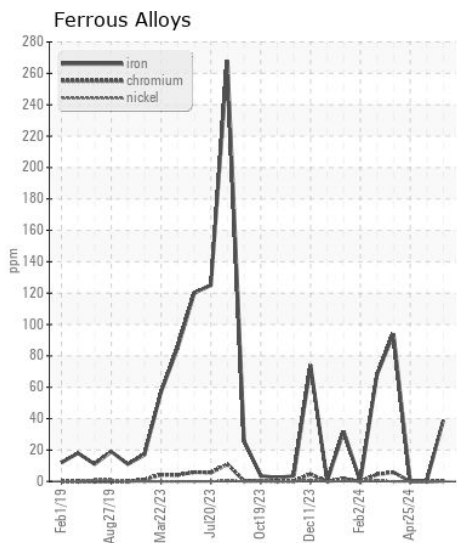
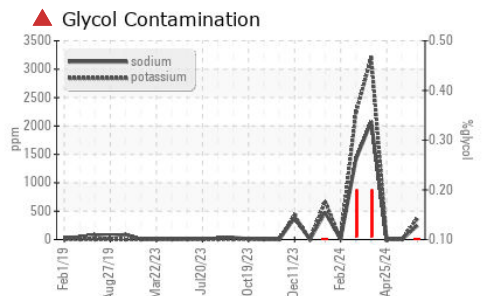
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	7	4	4
Potassium	ppm	ASTM D5185m	>20	375	<1	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.5	4.0	4.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	17.0	17.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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		246	<1	<1
Boron	ppm	ASTM D5185m	0	3	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	108	55	55
Manganese	ppm	ASTM D5185m	0	1	0	0
Magnesium	ppm	ASTM D5185m	1010	862	954	932
Calcium	ppm	ASTM D5185m	1070	1044	1040	1044
Phosphorus	ppm	ASTM D5185m	1150	990	1038	1027
Zinc	ppm	ASTM D5185m	1270	1170	1230	1237
Sulfur	ppm	ASTM D5185m	2060	3251	3715	3698
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	12.6	12.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.0	8.7	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	14.5	14.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0105299
Lab Number : 06209773
Unique Number : 11082637
Test Package : FLEET (Additional Tests: Glycol)
Received : 14 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - Wes Davis

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536
 Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010
 F:

Certificate L2367
 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)