



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
721072
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116029	GFL0116026	GFL0092887
Sample Date		Client Info		16 May 2024	04 Apr 2024	26 Jan 2024
Machine Age	hrs	Client Info		8199	7989	7583
Oil Age	hrs	Client Info		0	64346	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	18	21
Chromium	ppm	ASTM D5185m	>20	2	0	2
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	2	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	0	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	0	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

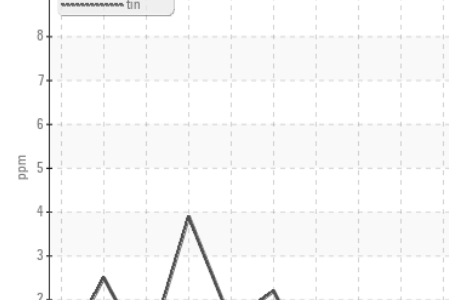
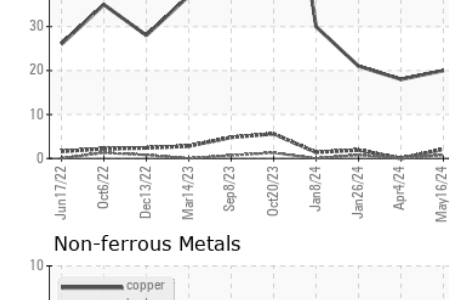
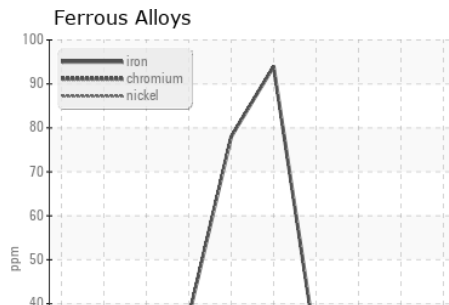
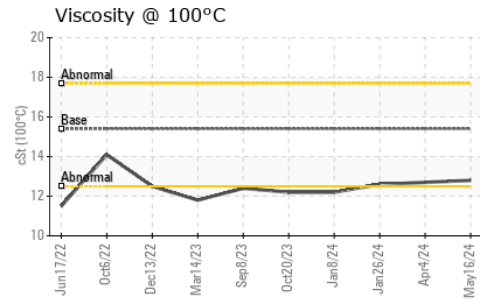
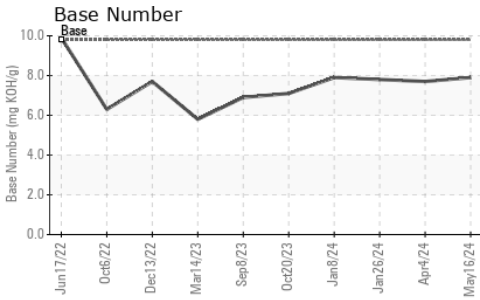
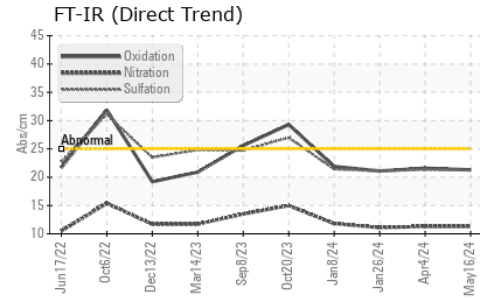
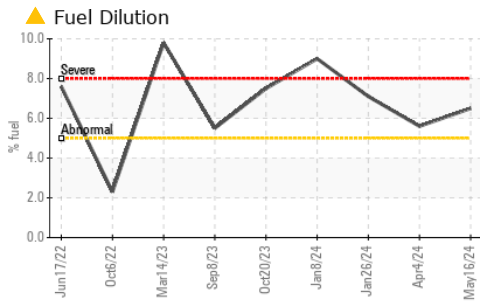
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	7	4	7
Potassium	ppm	ASTM D5185m	>20	2	0	2
Fuel	%	ASTM D3524	>5	▲ 6.5	▲ 5.6	▲ 7.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.3	11.3	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	21.3	21.1
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		7	5	7
Boron	ppm	ASTM D5185m	0	25	21	24
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	58	60	60
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	1008	1170	1007
Calcium	ppm	ASTM D5185m	1070	771	889	744
Phosphorus	ppm	ASTM D5185m	1150	917	1120	962
Zinc	ppm	ASTM D5185m	1270	1128	1317	1160
Sulfur	ppm	ASTM D5185m	2060	3024	4035	3046
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	21.6	21.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.9	7.7	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.7	12.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116029 **Received** : 28 May 2024
Lab Number : 06191887 **Tested** : 29 May 2024
Unique Number : 11048639 **Diagnosed** : 30 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: PercentFuel)
 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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