



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Machine Id
4707M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122358	GFL0117616	GFL0108726
Sample Date		Client Info		10 Jun 2024	22 Apr 2024	10 Jan 2024
Machine Age	hrs	Client Info		13041	12631	11869
Oil Age	hrs	Client Info		11869	12631	11598
Filter Age	hrs	Client Info		5999	5999	11598
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	27	6	29
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	5	1	6
Lead	ppm	ASTM D5185m	>25	2	0	<1
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

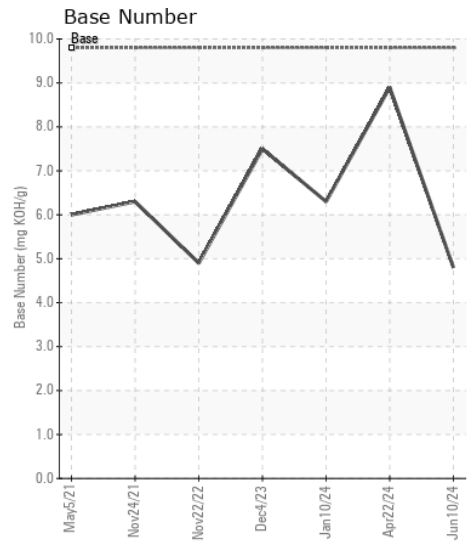
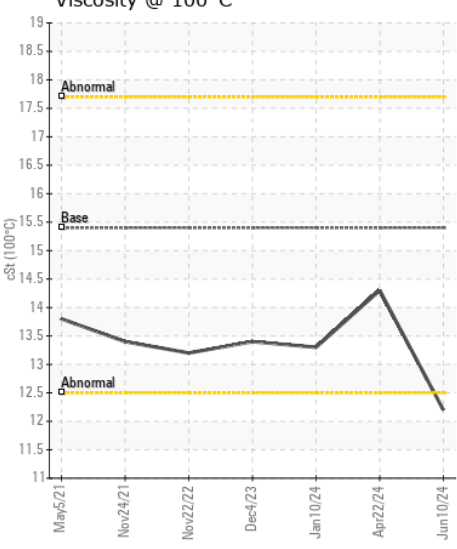
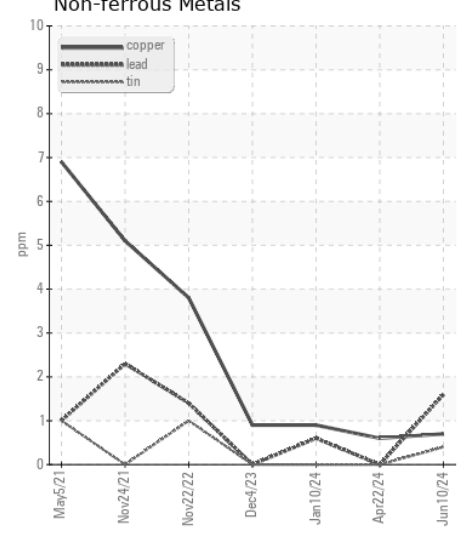
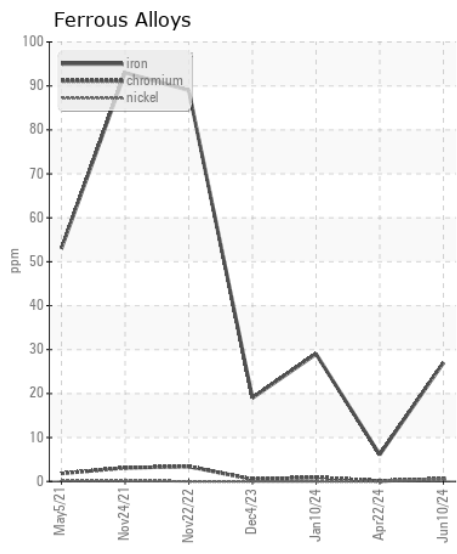
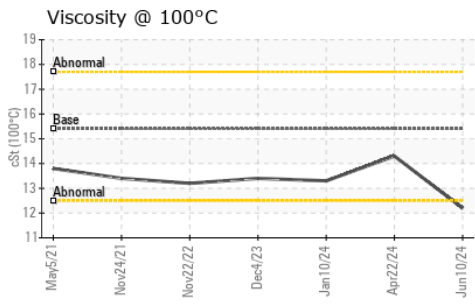
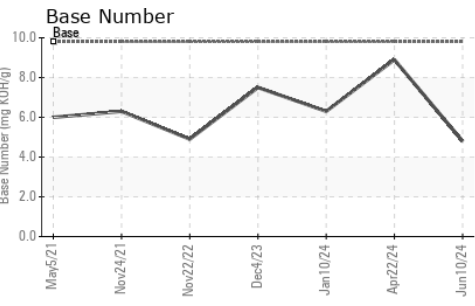
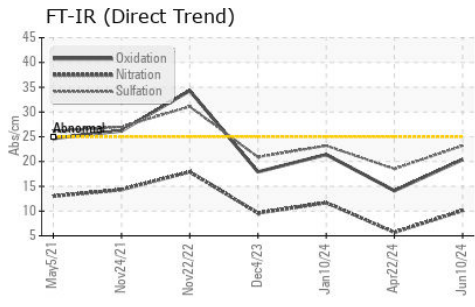
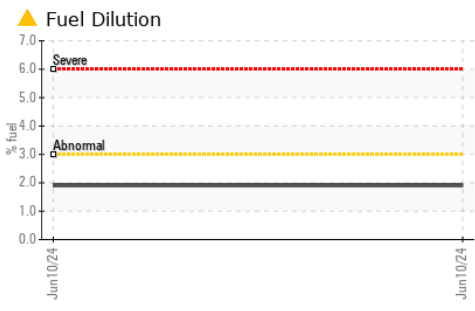
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	5	4	7
Potassium	ppm	ASTM D5185m	>20	5	<1	1
Fuel	%	ASTM D3524	>3.0	▲ 1.9	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.9	0.1	1
Nitration	Abs/cm	*ASTM D7624	>20	10.1	5.7	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	18.5	23.2
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 suitable for further service.

Sodium	ppm	ASTM D5185m		6	2	5
Boron	ppm	ASTM D5185m	0	5	<1	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	49	59	59
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	837	996	1004
Calcium	ppm	ASTM D5185m	1070	911	1114	1173
Phosphorus	ppm	ASTM D5185m	1150	977	1058	1097
Zinc	ppm	ASTM D5185m	1270	1188	1284	1377
Sulfur	ppm	ASTM D5185m	2060	2908	3477	3155
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	14.1	21.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.8	8.9	6.3
Visc @ 100°C	cSt	ASTM D445	15.4	12.2	14.3	13.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122358 **Received** : 20 Jun 2024
Lab Number : 06215366 **Tested** : 24 Jun 2024
Unique Number : 11088230 **Diagnosed** : 24 Jun 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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 Sterling Heights, MI
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 Contact: Frank Wolak
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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)