



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
925006
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113196	GFL0113234	GFL0113245
Sample Date		Client Info		25 Jun 2024	14 Jun 2024	16 Apr 2024
Machine Age	hrs	Client Info		17016	0	17016
Oil Age	hrs	Client Info		16485	22946	16485
Filter Age	hrs	Client Info		16485	0	16485
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	8	4	6
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	1	2
Lead	ppm	ASTM D5185(m)	>40	<1	0	0
Copper	ppm	ASTM D5185(m)	>330	2	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

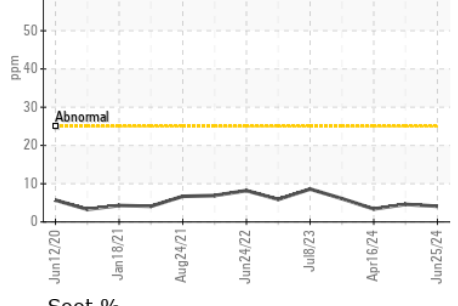
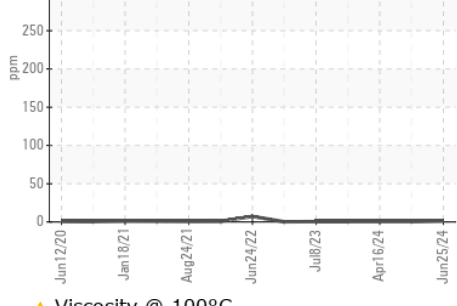
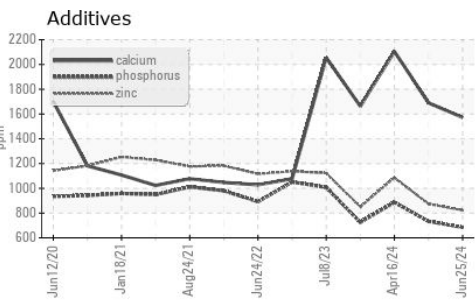
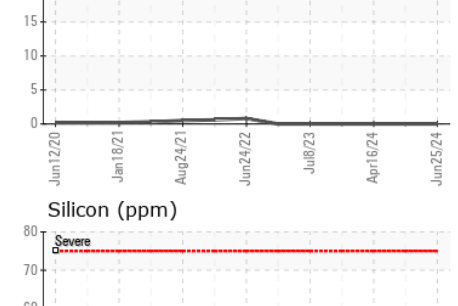
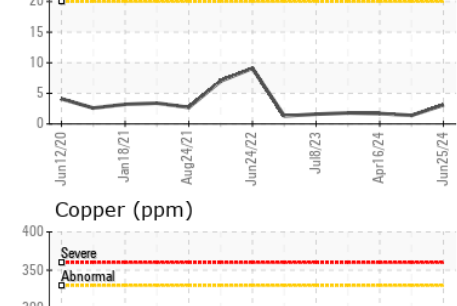
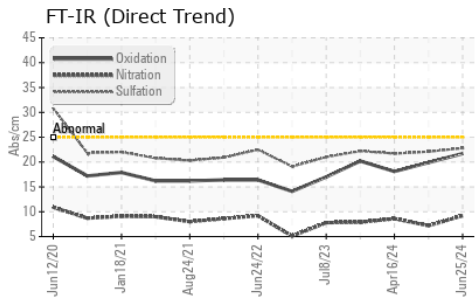
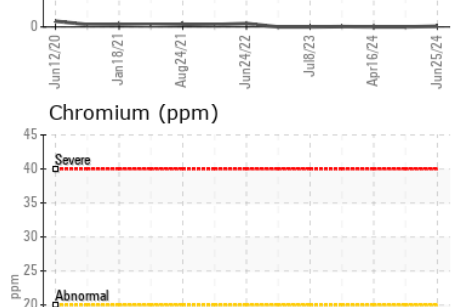
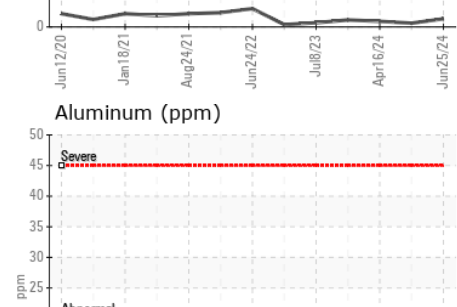
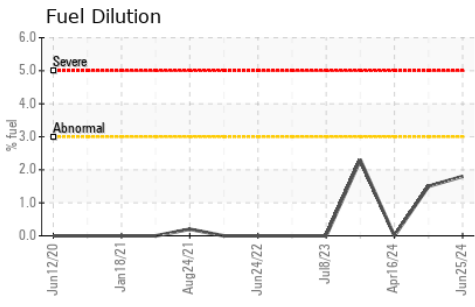
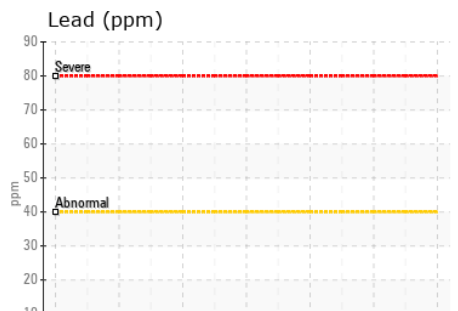
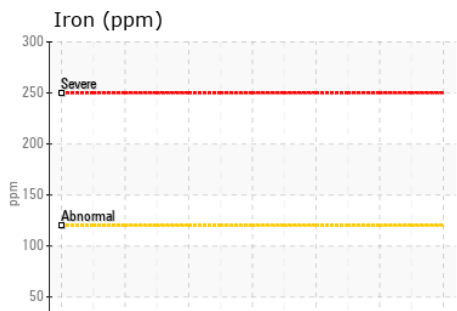
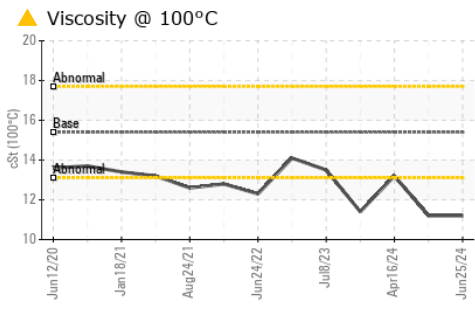
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	5	3
Potassium	ppm	ASTM D5185(m)	>20	1	<1	5
Fuel	%	ASTM D7593*	>3.0	1.8	1.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.5	0.1	0.8
Nitration	Abs/cm	ASTM D7624*	>20	9.2	7.2	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.8	22.1	21.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		3	2	3
Boron	ppm	ASTM D5185(m)	0	25	35	96
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	42	36	3
Manganese	ppm	ASTM D5185(m)	0	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	475	448	51
Calcium	ppm	ASTM D5185(m)	1070	1572	1690	2105
Phosphorus	ppm	ASTM D5185(m)	1150	684	733	887
Zinc	ppm	ASTM D5185(m)	1270	822	874	1086
Sulfur	ppm	ASTM D5185(m)	2060	1890	2134	2690
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.7	19.9	18.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.2	▲ 11.2	13.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113196 **Received** : 27 Jun 2024
Lab Number : 02644327 **Tested** : 28 Jun 2024
Unique Number : 5801866 **Diagnosed** : 28 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel)

GFL Environmental - 246 - Windsor
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 Windsor, ON
 CA N8W 5H8
 Contact: Dave Varga
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 T: (519)944-8009
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.