



Machine Id
201073
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 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		GFL0117269	GFL0084289	GFL0077576
Sample Date		Client Info		24 Apr 2024	21 Jul 2023	24 Apr 2023
Machine Age	kms	Client Info		724	244358	9095
Oil Age	kms	Client Info		724	0	459
Filter Age	kms	Client Info		724	0	459
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>80	67	21	22
Chromium	ppm	ASTM D5185(m)	>5	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	16	9	15
Lead	ppm	ASTM D5185(m)	>30	0	0	0
Copper	ppm	ASTM D5185(m)	>150	2	<1	<1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

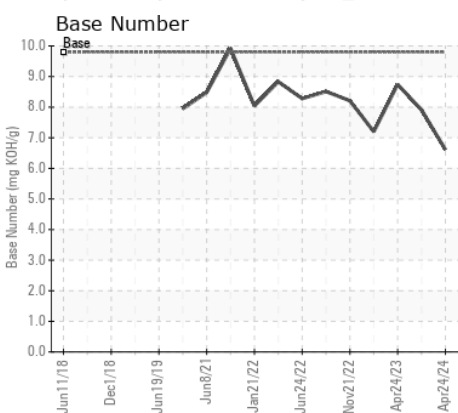
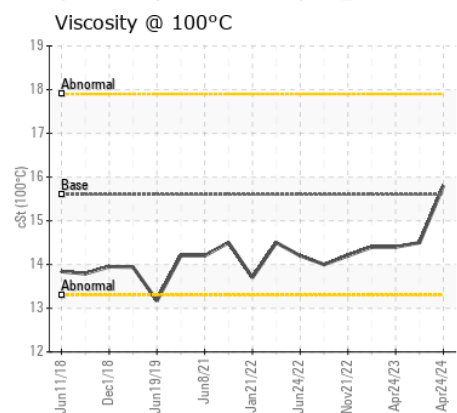
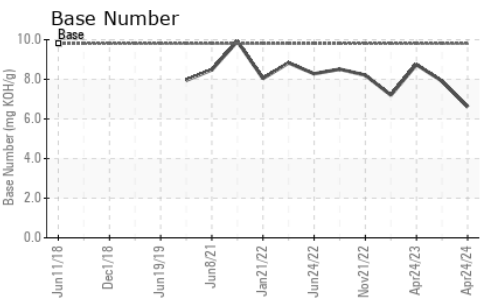
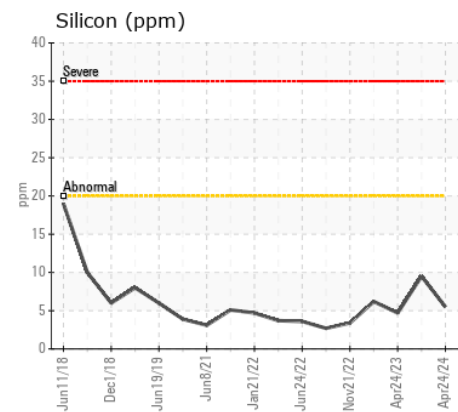
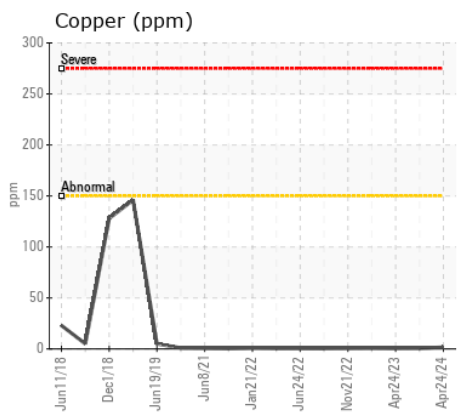
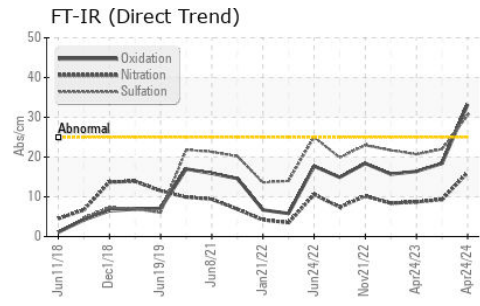
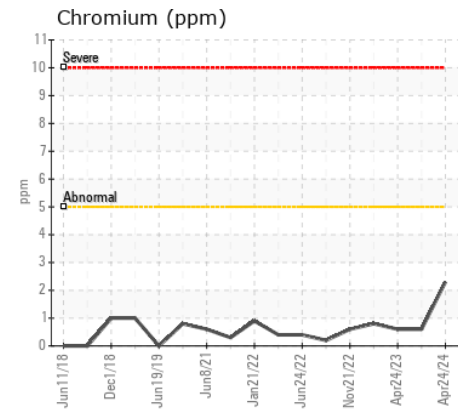
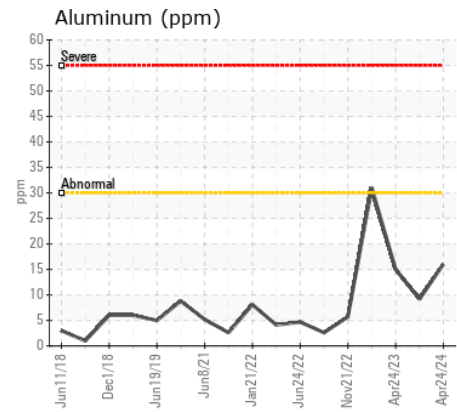
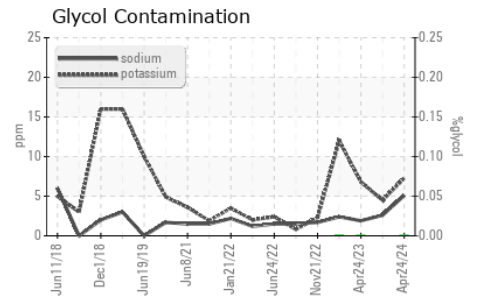
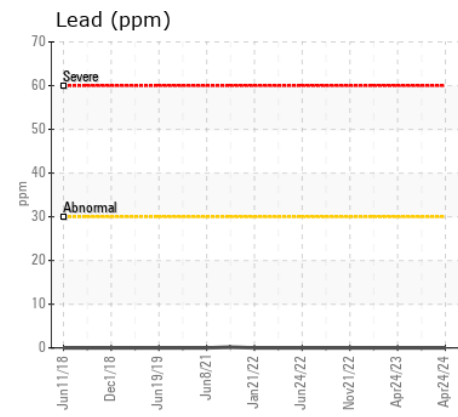
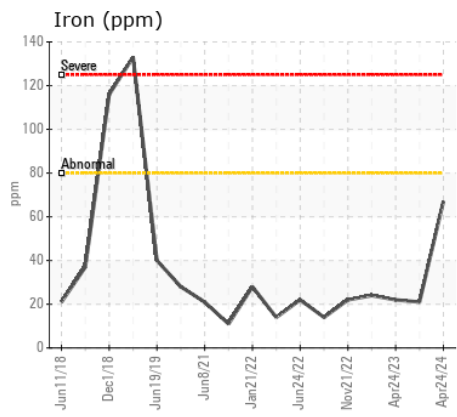
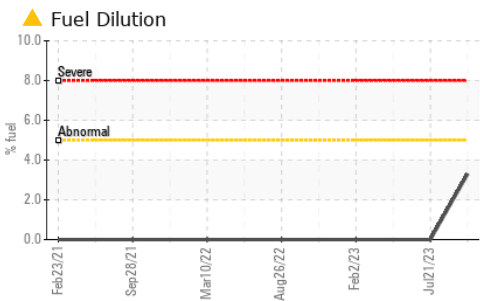
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>20	6	10	5
Potassium	ppm	ASTM D5185(m)	>20	7	4	7
Fuel	%	ASTM D7593*	>5	▲ 3.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	0.0
Soot %	%	ASTM D7844*	>3	1.7	0.6	0.8
Nitration	Abs/cm	ASTM D7624*	>20	16.1	9.3	8.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	30.5	22.0	20.7
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 D5185(m)		5	3	2
Boron	ppm	ASTM D5185(m)	0	3	3	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	58	58
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	952	958	939
Calcium	ppm	ASTM D5185(m)	1070	1054	1072	1111
Phosphorus	ppm	ASTM D5185(m)	1150	963	1034	1061
Zinc	ppm	ASTM D5185(m)	1270	1173	1196	1181
Sulfur	ppm	ASTM D5185(m)	2060	2209	2445	2523
Oxidation	Abs/.1mm	ASTM D7414*	>25	33.2	18.4	16.4
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	6.61	7.91	8.74
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	15.8	14.5	14.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117269
Lab Number : 02632479
Unique Number : 5773632
Test Package : MOB 2 (Additional Tests: FUELDILUTION, Glycol, PercentFuel)

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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.