MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
111002
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

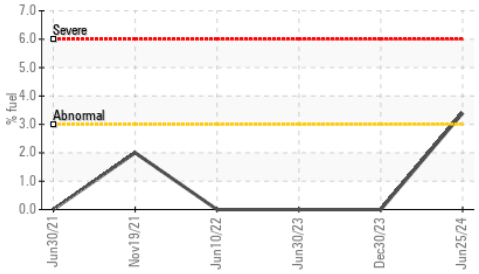
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

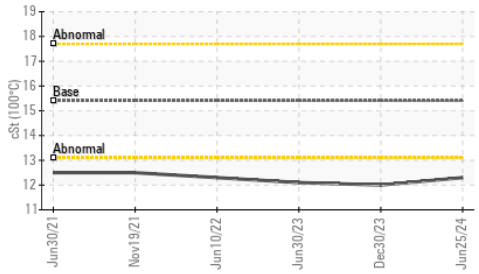
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100582	GFL0100641	GFL0077037
Sample Date		Client Info		25 Jun 2024	30 Dec 2023	30 Jun 2023
Machine Age	kms	Client Info		4577	93404	79998
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>90	23	30	29
Chromium	ppm	ASTM D5185(m)	>20	1	2	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	12	18	17
Lead	ppm	ASTM D5185(m)	>40	<1	2	1
Copper	ppm	ASTM D5185(m)	>330	<1	1	1
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	3	5	6
Potassium	ppm	ASTM D5185(m)	>20	22	36	33
Fuel	%	ASTM D7593*	>3.0	▲ 3.4	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.3	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.0	10.4	9.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	21.8	20.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		4	4	2
Boron	ppm	ASTM D5185(m)	0	3	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	58	57
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	915	909	917
Calcium	ppm	ASTM D5185(m)	1070	997	1000	996
Phosphorus	ppm	ASTM D5185(m)	1150	941	945	995
Zinc	ppm	ASTM D5185(m)	1270	1133	1123	1133
Sulfur	ppm	ASTM D5185(m)	2060	2432	2541	2402
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.3	19.2	17.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.3	12.0	12.1

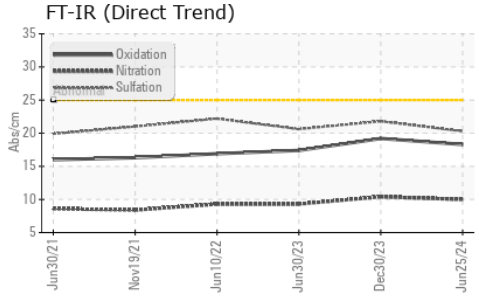
Fuel Dilution



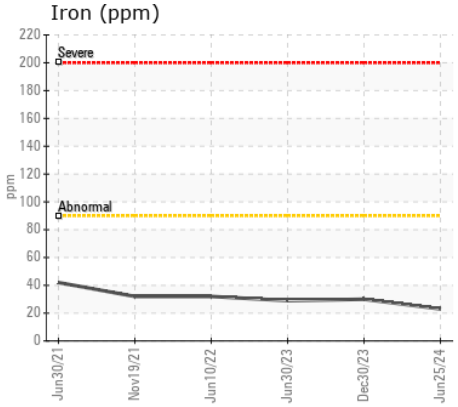
Viscosity @ 100°C



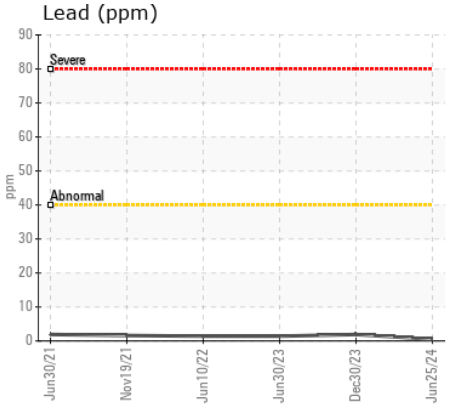
FT-IR (Direct Trend)



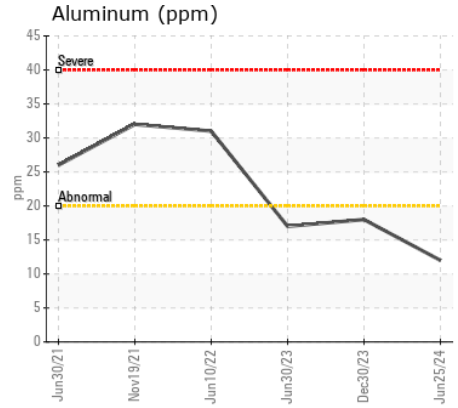
Iron (ppm)



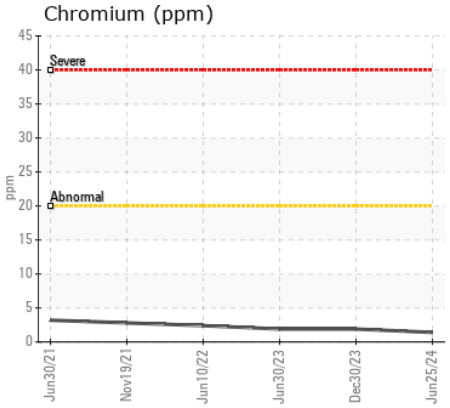
Lead (ppm)



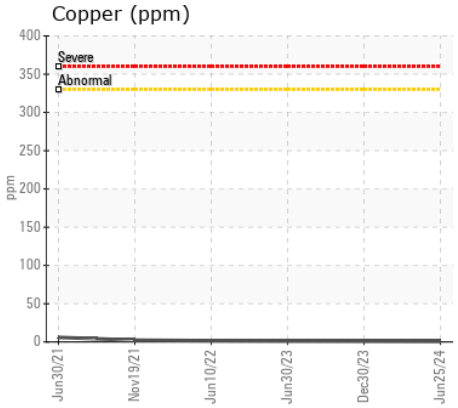
Aluminum (ppm)



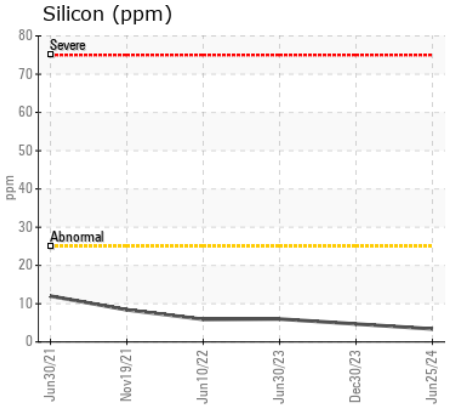
Chromium (ppm)



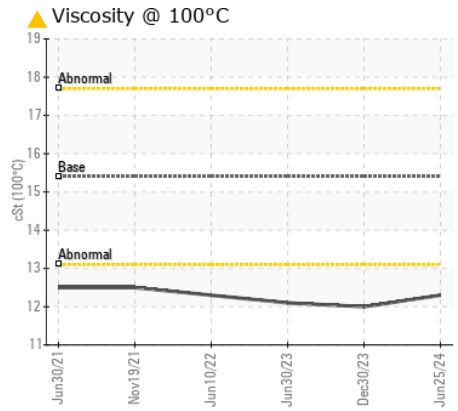
Copper (ppm)



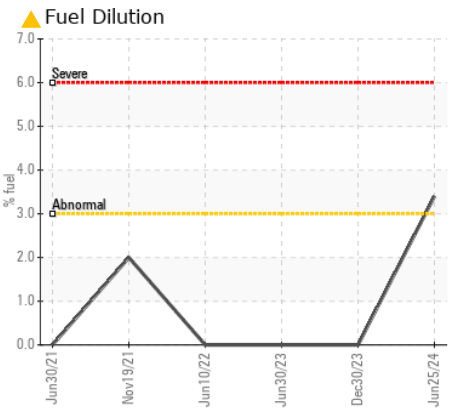
Silicon (ppm)



Viscosity @ 100°C



Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100582
Lab Number : 02644747
Unique Number : 5802286
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Wes Davis

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.

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