FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
(DM7929) Whiteville NC
Machine Id
11061
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (6 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

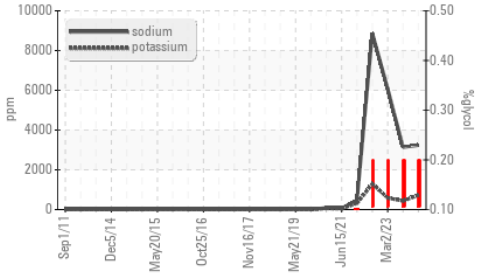
Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

FLUID CONDITION

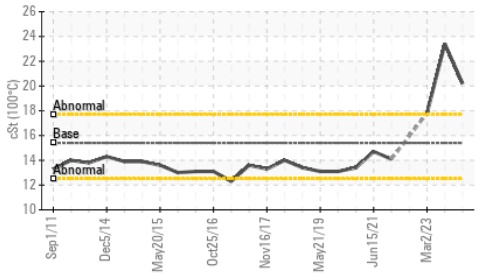
The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0083343	GFL0054257	GFL0054214
Sample Date		Client Info		26 Jun 2023	04 May 2023	02 Mar 2023
Machine Age	hrs	Client Info		6176	6126	6039
Oil Age	hrs	Client Info		600	300	600
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>90	92	76	⬢ 221
Chromium	ppm	ASTM D5185m	>20	4	3	5
Nickel	ppm	ASTM D5185m	>2	2	2	5
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	5	4	▲ 14
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	117	62	62
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ 65	▲ 58	⬢ 129
Potassium	ppm	ASTM D5185m	>20	▲ 727	▲ 435	▲ 586
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		⬢ 0.20	⬢ 0.20	⬢ 0.20
Soot %	%	*ASTM D7844	>6	0.2	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	13.2	10.6	17.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	20.9	27.8
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
Sodium	ppm	ASTM D5185m		▲ 3236	▲ 3138	▲ 6083
Boron	ppm	ASTM D5185m	0	221	195	164
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	173	158	280
Manganese	ppm	ASTM D5185m	0	1	1	2
Magnesium	ppm	ASTM D5185m	1010	916	938	805
Calcium	ppm	ASTM D5185m	1070	985	1038	1048
Phosphorus	ppm	ASTM D5185m	1150	1015	1000	936
Zinc	ppm	ASTM D5185m	1270	1260	1240	1156
Sulfur	ppm	ASTM D5185m	2060	3727	3420	2799
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	13.5	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	28.1	23.9	37.4
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 20.2	▲ 23.4	▲ 17.8

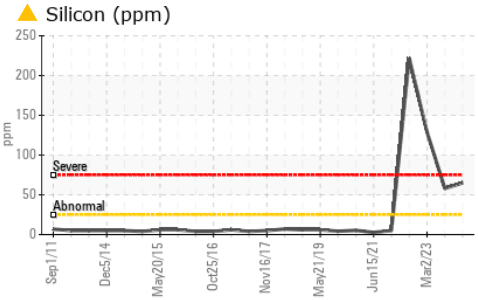
Glycol Contamination



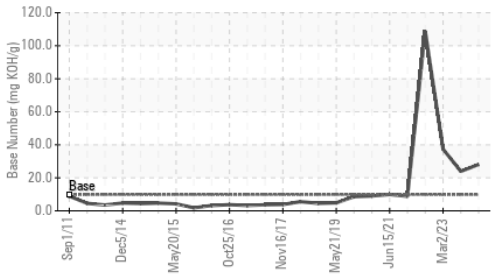
Viscosity @ 100°C



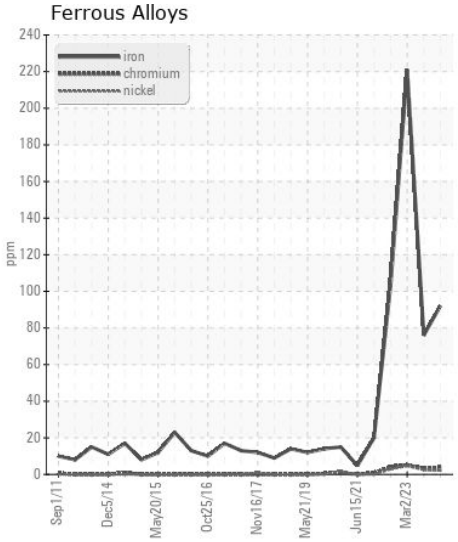
Silicon (ppm)



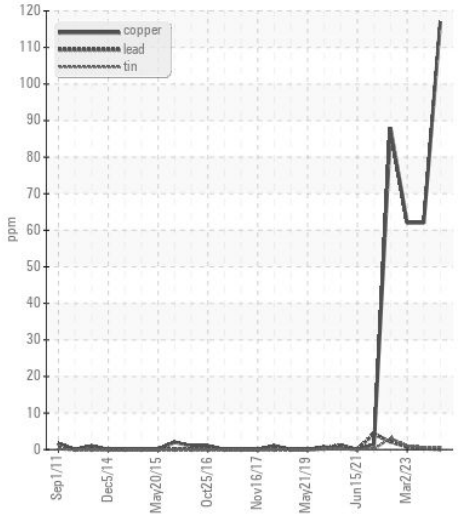
Base Number



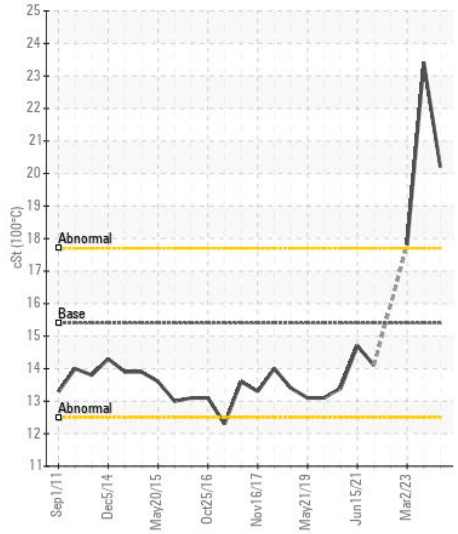
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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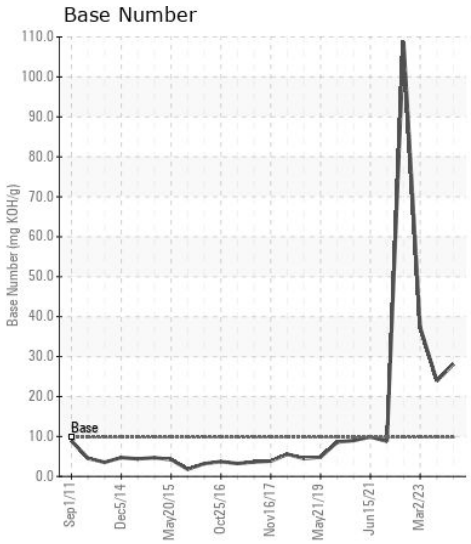

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083343
Lab Number : 05884197
Unique Number : 10534680
Test Package : FLEET

Received : 27 Jun 2023
Tested : 29 Jun 2023
Diagnosed : 29 Jun 2023 - Jonathan Hester

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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