FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
(YA156325) 19DR
Machine Id
810010
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

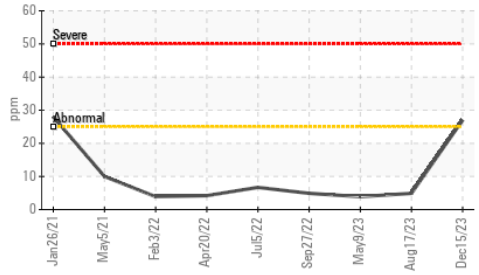
Sodium and/or potassium levels are high. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

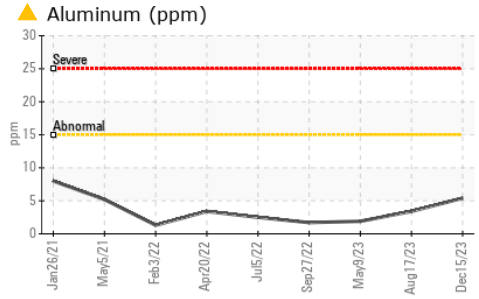
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0098792	GFL0092508	GFL0070490
Sample Date		Client Info		15 Dec 2023	17 Aug 2023	09 May 2023
Machine Age	hrs	Client Info		6040	0	6040
Oil Age	hrs	Client Info		6040	212	6040
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>75	28	21	10
Chromium	ppm	ASTM D5185m	>5	<1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>15	▲ 5	3	2
Lead	ppm	ASTM D5185m	>25	0	<1	<1
Copper	ppm	ASTM D5185m	>100	8	2	1
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ 27	5	4
Potassium	ppm	ASTM D5185m	>20	6	1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.8	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	16.3	10.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	22.6	20.8
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		▲ 1110	12	2
Boron	ppm	ASTM D5185m	0	56	1	2
Barium	ppm	ASTM D5185m	0	0	0	2
Molybdenum	ppm	ASTM D5185m	60	98	65	65
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	898	1036	965
Calcium	ppm	ASTM D5185m	1070	1034	1236	1161
Phosphorus	ppm	ASTM D5185m	1150	997	1080	1067
Zinc	ppm	ASTM D5185m	1270	1164	1348	1264
Sulfur	ppm	ASTM D5185m	2060	2558	3552	2857
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	19.7	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.7	6.9	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.9	14.1

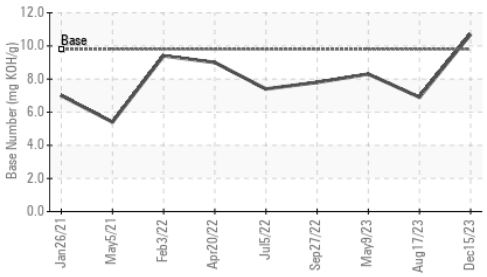
Silicon (ppm)



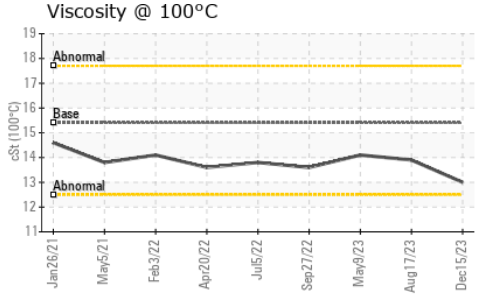
Aluminum (ppm)



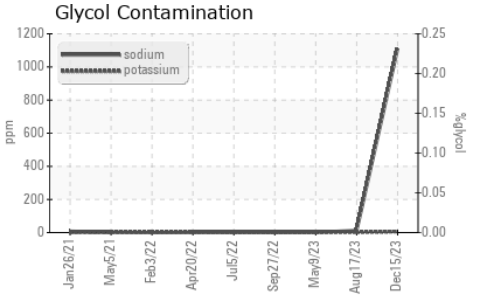
Base Number



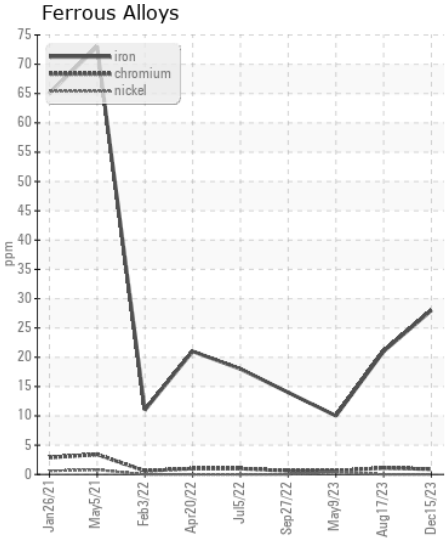
Viscosity @ 100°C



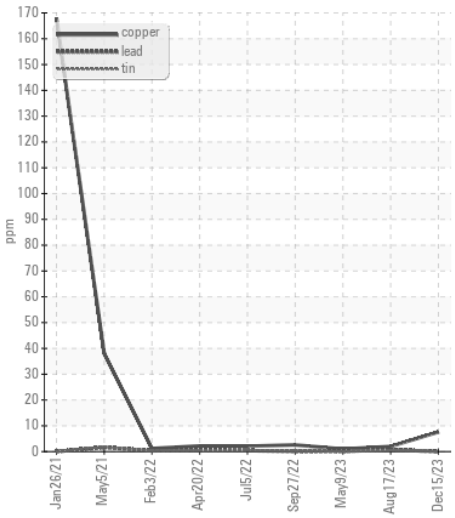
Glycol Contamination



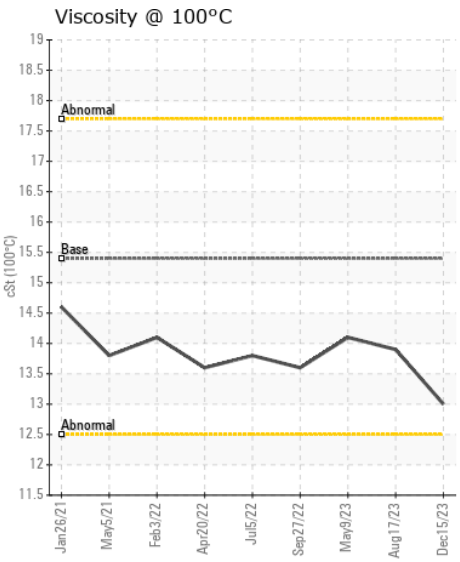
Ferrous Alloys



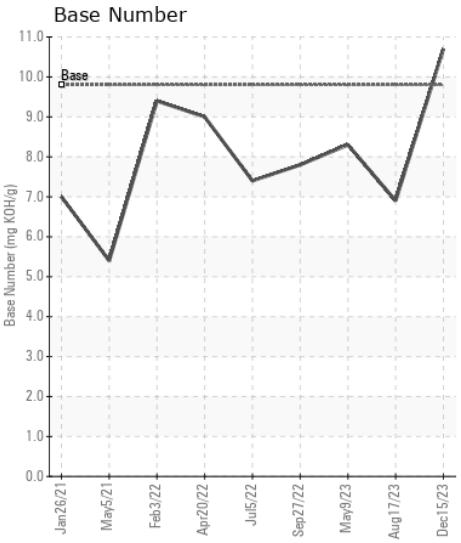
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098792
Lab Number : 06047685
Unique Number : 10808293
Test Package : FLEET (Additional Tests: Glycol)

Received : 29 Dec 2023
Tested : 02 Jan 2024
Diagnosed : 02 Jan 2024 - 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)

GFL Environmental - 19DR - Deep Run/TriEast
2287 Leslie R Stroud Road
Kinston, NC
US 28504-9477
Contact: Spencer Liggon
spencer.liggon@gflenv.com
T: (800)207-6618
F: