



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
496M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115127	GFL0115080	GFL0115107
Sample Date		Client Info		20 May 2024	26 Mar 2024	26 Mar 2024
Machine Age	hrs	Client Info		24507	24506	24506
Oil Age	hrs	Client Info		61	60	50
Filter Age	hrs	Client Info		61	60	50
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	64	18	20
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	1	0	0
Aluminum	ppm	ASTM D5185m	>20	12	2	2
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	3	0	<1
Tin	ppm	ASTM D5185m	>15	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

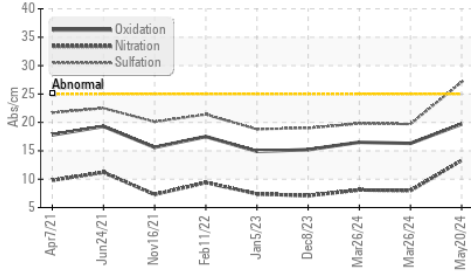
Silicon	ppm	ASTM D5185m	>25	7	4	4
Potassium	ppm	ASTM D5185m	>20	6	<1	0
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	3.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	13.3	8.0	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.1	19.7	19.8
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

FLUID CONDITION

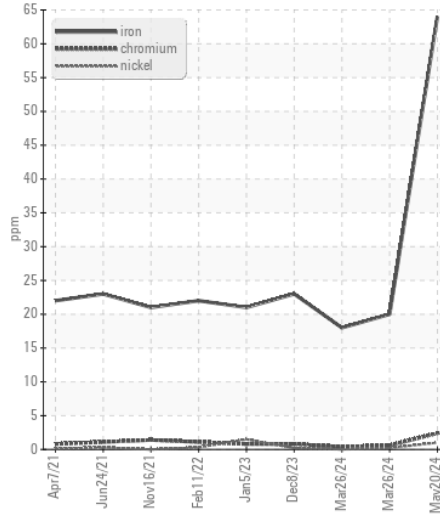
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		9	3	3
Boron	ppm	ASTM D5185m	0	3	3	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	63	61	62
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	888	984	1085
Calcium	ppm	ASTM D5185m	1070	1206	1107	1193
Phosphorus	ppm	ASTM D5185m	1150	920	1089	1135
Zinc	ppm	ASTM D5185m	1270	1286	1297	1387
Sulfur	ppm	ASTM D5185m	2060	3124	3453	3849
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	16.3	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	8.4	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	15.7	14.4	14.5

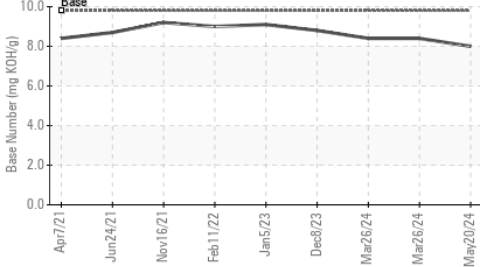
FT-IR (Direct Trend)



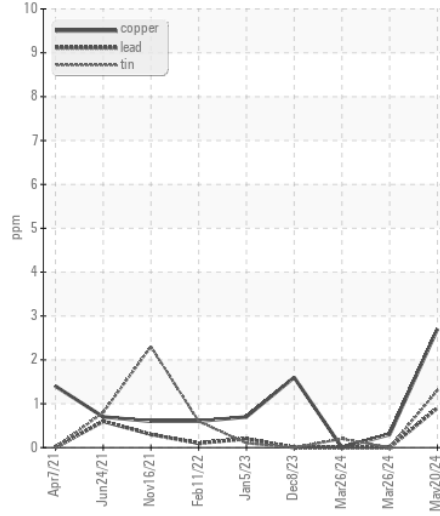
Ferrous Alloys



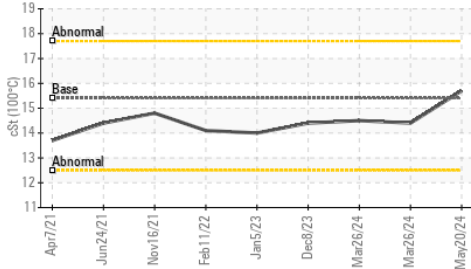
Base Number



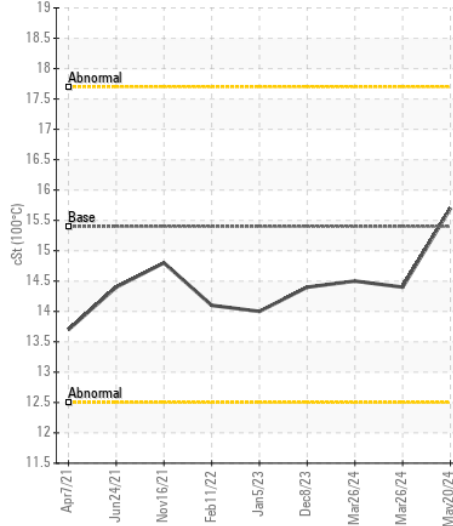
Non-ferrous Metals



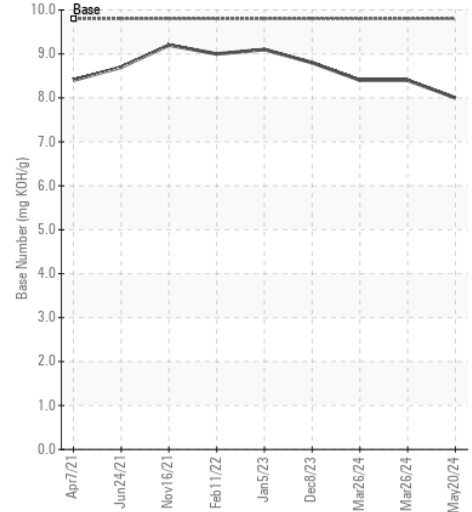
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115127
Lab Number : 06190257
Unique Number : 11047009
Test Package : FLEET

Received : 24 May 2024
Tested : 25 May 2024
Diagnosed : 25 May 2024 - Wes Davis

GFL Environmental - 405 - Arbor Hills
 7811 Chubb Rd
 NORTHVILLE, MI
 US 48168

Contact: Anthony Hopkins
 ahopkins@gflenv.com

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)

T:
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