



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(TE6321)

Machine Id

910009

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (32 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0094901	GFL0090140	GFL0075169
Sample Date		Client Info		20 May 2024	16 Apr 2024	19 Sep 2023
Machine Age	hrs	Client Info		10828	10581	9483
Oil Age	hrs	Client Info		10828	10581	9483
Filter Age	hrs	Client Info		247	409	373
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	45	38	6
Chromium	ppm	ASTM D5185m	>5	3	3	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	9	5
Lead	ppm	ASTM D5185m	>150	0	<1	0
Copper	ppm	ASTM D5185m	>90	3	1	<1
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	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.

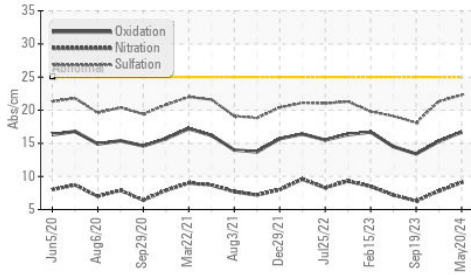
Silicon	ppm	ASTM D5185m	>35	7	8	3
Potassium	ppm	ASTM D5185m	>20	20	21	7
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	1	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.1	7.8	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	21.3	18.1
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

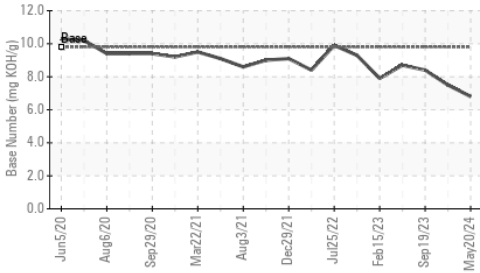
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		60	63	2
Boron	ppm	ASTM D5185m	0	126	177	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	100	102	63
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	1010	580	500	922
Calcium	ppm	ASTM D5185m	1070	1319	1238	1098
Phosphorus	ppm	ASTM D5185m	1150	1045	1029	1038
Zinc	ppm	ASTM D5185m	1270	1233	1191	1224
Sulfur	ppm	ASTM D5185m	2060	3539	3338	3294
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	15.3	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.8	7.5	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.1	14.4

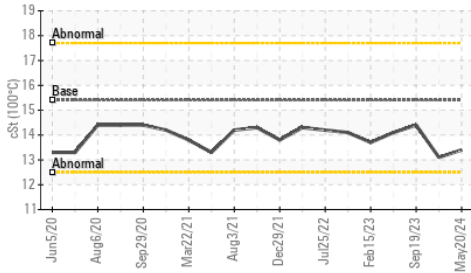
FT-IR (Direct Trend)



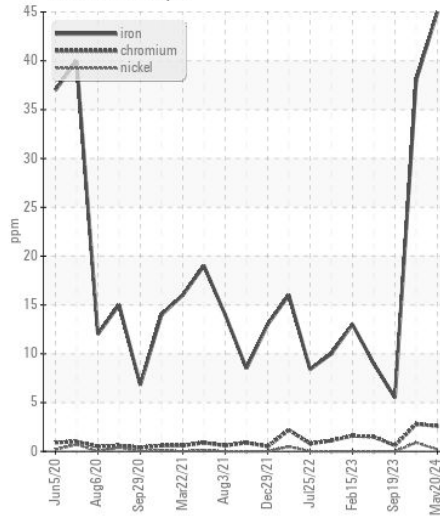
Base Number



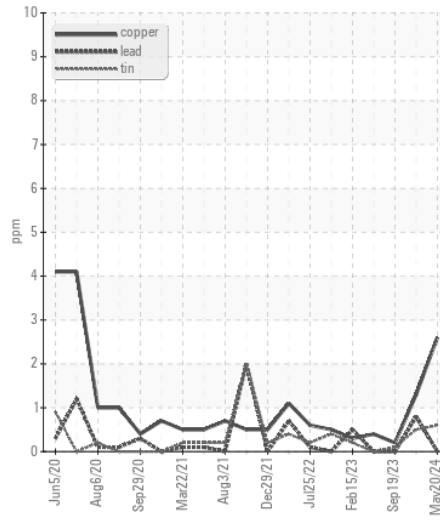
Viscosity @ 100°C



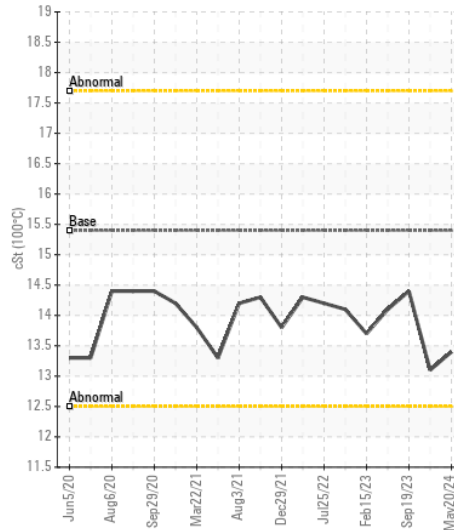
Ferrous Alloys



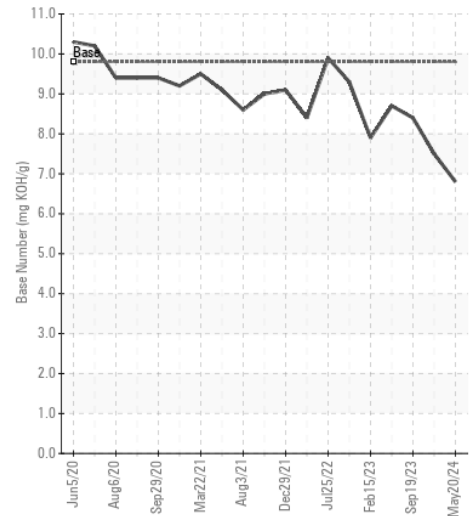
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094901
Lab Number : 06185802
Unique Number : 11042554
Test Package : FLEET

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 23 May 2024 - Jonathan Hester

GFL Environmental - 044 - Elizabeth City
 657 Old US 17
 Elizabeth City, NC
 US 27909
 Contact: TOM BAIRD
 tom.baIRD@gflenv.com
 T: (252)562-2645
 F: (252)264-4411

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)