



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
813001
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0091968	GFL0103136	GFL0103139
Sample Date		Client Info		28 May 2024	22 Apr 2024	18 Jan 2024
Machine Age	hrs	Client Info		2417	2030	1967
Oil Age	hrs	Client Info		550	63	114
Filter Age	hrs	Client Info		550	63	114
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	17	13	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	0	3
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	8	6	5
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

CONTAMINATION

There is no indication of any contamination in the oil.

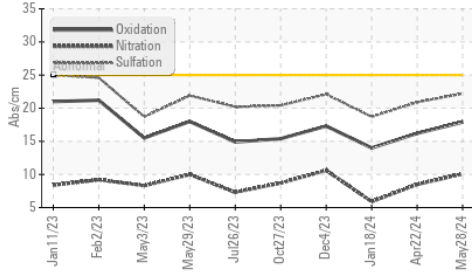
Silicon	ppm	ASTM D5185m	>25	5	▲ 36	4
Potassium	ppm	ASTM D5185m	>20	<1	0	1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.7	0.9	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.1	8.5	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	20.9	18.7
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

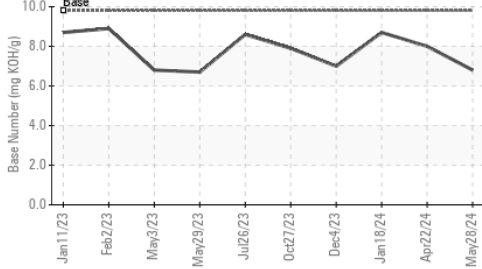
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	2
Boron	ppm	ASTM D5185m	0	15	16	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	65	66	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	982	989	1137
Calcium	ppm	ASTM D5185m	1070	1124	1169	1144
Phosphorus	ppm	ASTM D5185m	1150	1107	1069	1182
Zinc	ppm	ASTM D5185m	1270	1305	1310	1454
Sulfur	ppm	ASTM D5185m	2060	3358	3358	3644
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	16.2	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.8	8.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.1	14.2

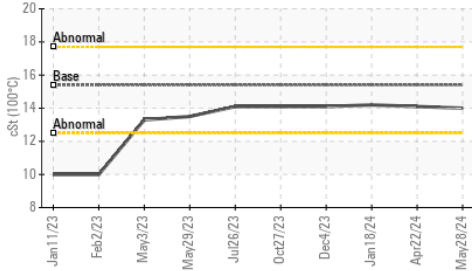
FT-IR (Direct Trend)



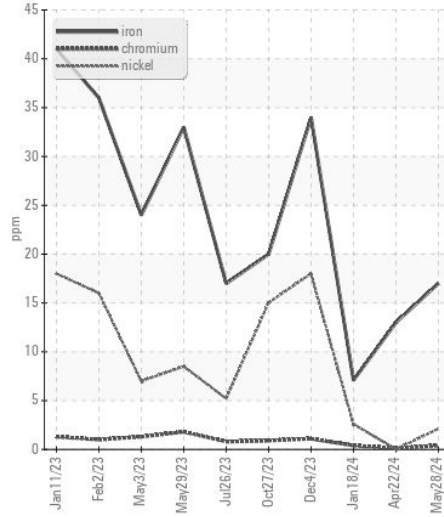
Base Number



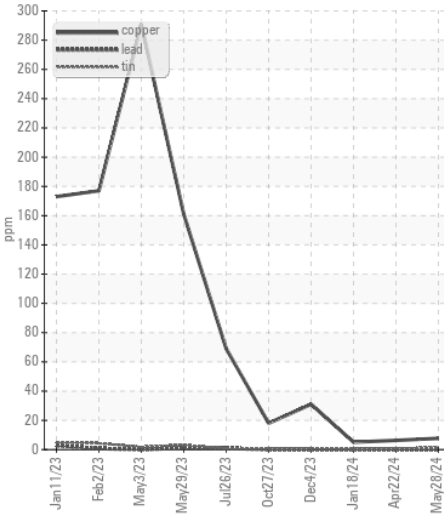
Viscosity @ 100°C



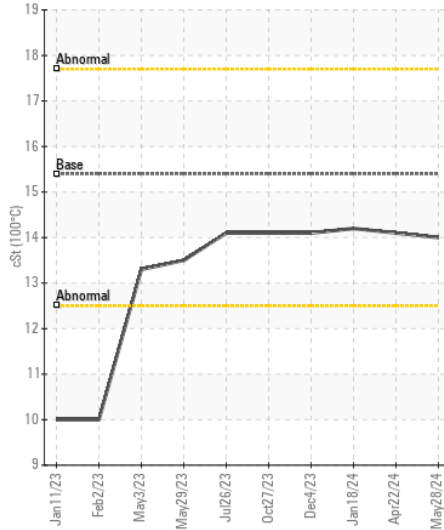
Ferrous Alloys



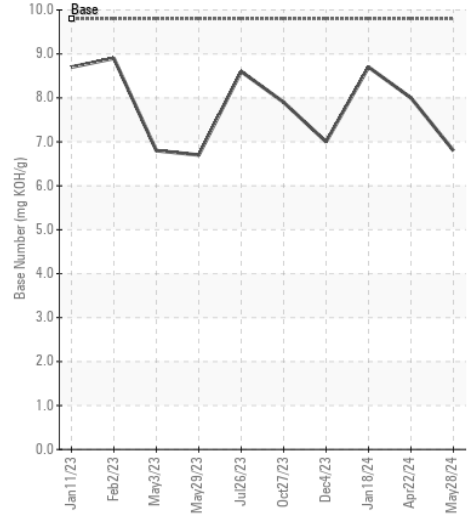
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091968
Lab Number : 06195277
Unique Number : 11057400
Test Package : FLEET

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

GFL Environmental - 683 - Ruckersville Hauling
 261 INDUSTRIAL DR
 Ruckersville, VA
 US 22698

Contact: Jaf Finney
 jfinney@gflenv.com
 T: (434)990-4972

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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