



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
427160-4745
 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		GFL0066545	GFL0066522	---
Sample Date		Client Info		24 Jun 2024	20 Dec 2023	---
Machine Age	mls	Client Info		297087	283820	---
Oil Age	mls	Client Info		297087	283820	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	19	---
Chromium	ppm	ASTM D5185m	>20	1	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	4	2	---
Lead	ppm	ASTM D5185m	>40	5	0	---
Copper	ppm	ASTM D5185m	>330	2	0	---
Tin	ppm	ASTM D5185m	>15	<1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

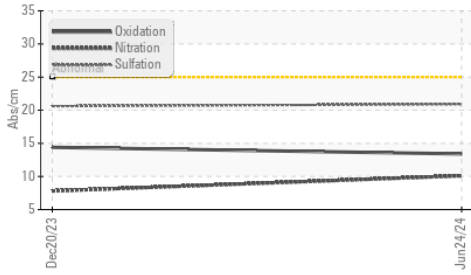
Silicon	ppm	ASTM D5185m	>25	11	5	---
Potassium	ppm	ASTM D5185m	>20	5	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	10.1	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.6	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

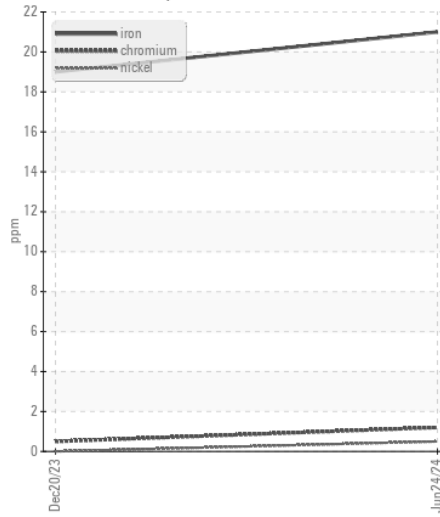
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	<1	---
Boron	ppm	ASTM D5185m	0	18	214	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	52	46	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	1010	59	207	---
Calcium	ppm	ASTM D5185m	1070	2554	1765	---
Phosphorus	ppm	ASTM D5185m	1150	1126	1043	---
Zinc	ppm	ASTM D5185m	1270	1370	1169	---
Sulfur	ppm	ASTM D5185m	2060	3453	3411	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	14.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.4	6.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	14.4	---

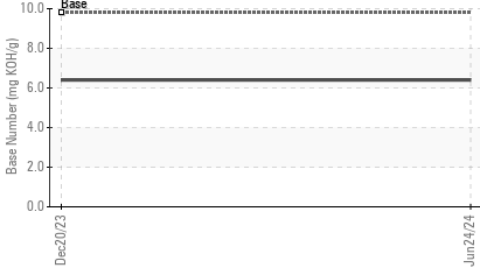
FT-IR (Direct Trend)



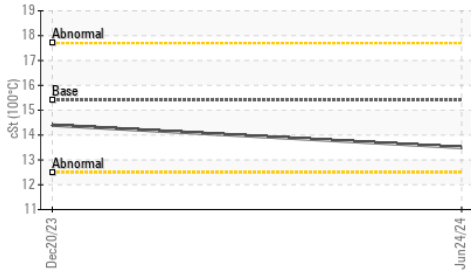
Ferrous Alloys



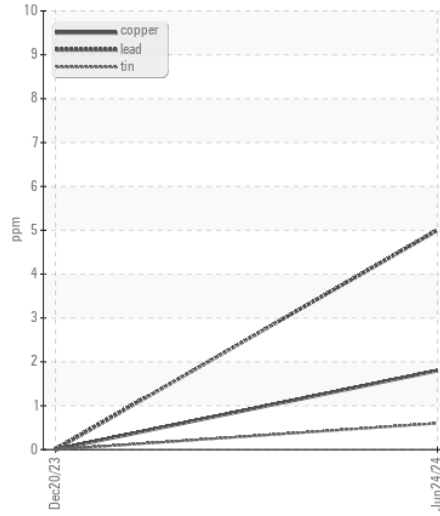
Base Number



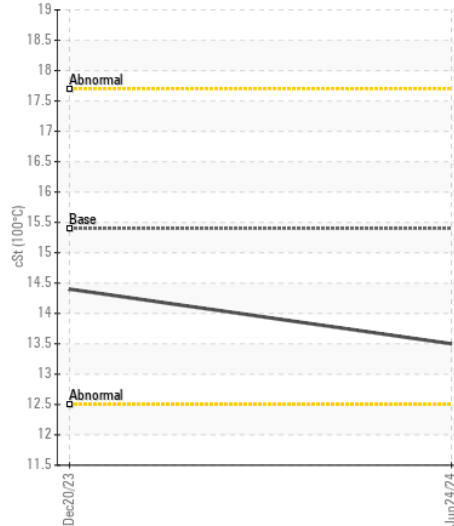
Viscosity @ 100°C



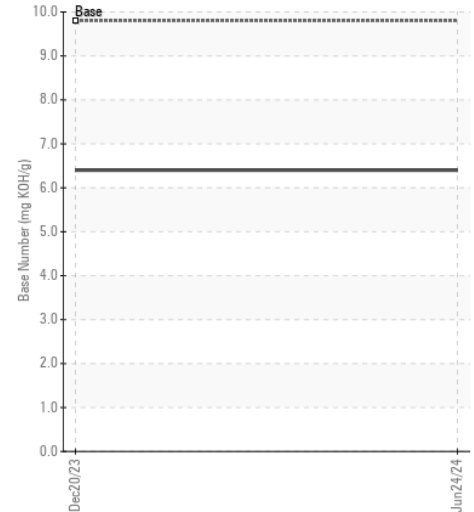
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0066545

Lab Number : 06229870

Unique Number : 11113363

Test Package : FLEET

Received : 08 Jul 2024

Tested : 09 Jul 2024

Diagnosed : 09 Jul 2024 - Don Baldrige

GFL Environmental - 977 - Montgomery Hauling

17851 Highway 105 E

Conroe, TX

US 77306

Contact: CHRIS YOUNG

christophery@gflenv.com

T:

F:

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)