



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
727096-310021
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Sample)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0125196	GFL0125198	GFL0114493
Sample Date		Client Info		28 Jun 2024	28 Jun 2024	24 Feb 2024
Machine Age	mls	Client Info		147386	145266	145266
Oil Age	mls	Client Info		0	141662	145266
Filter Age	mls	Client Info		0	0	0
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	>100	23	23	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	<1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	12	12	9
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	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.

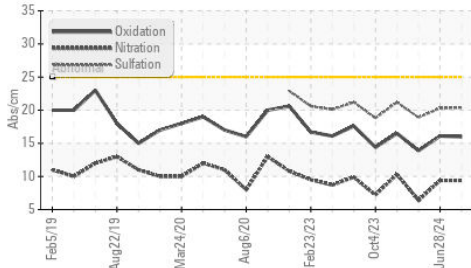
Silicon	ppm	ASTM D5185m	>25	6	6	4
Potassium	ppm	ASTM D5185m	>20	40	41	27
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.4	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.3	18.9
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

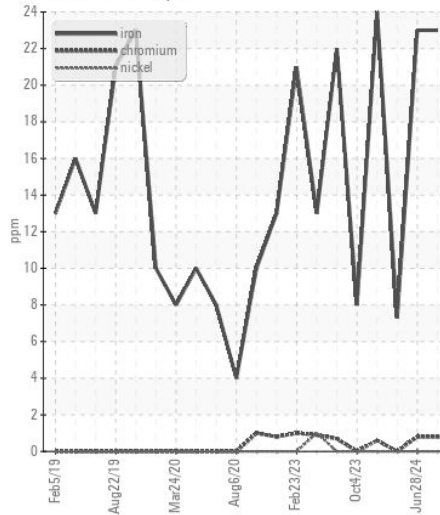
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		17	17	10
Boron	ppm	ASTM D5185m	0	3	4	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	61	62	63
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	982	976	1161
Calcium	ppm	ASTM D5185m	1070	1144	1146	1270
Phosphorus	ppm	ASTM D5185m	1150	1063	1043	1280
Zinc	ppm	ASTM D5185m	1270	1319	1313	1570
Sulfur	ppm	ASTM D5185m	2060	3504	3508	3914
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	16.1	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	8.4	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.5	14.4

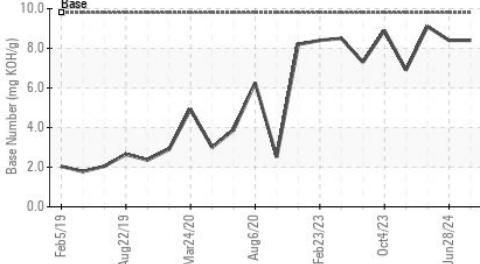
FT-IR (Direct Trend)



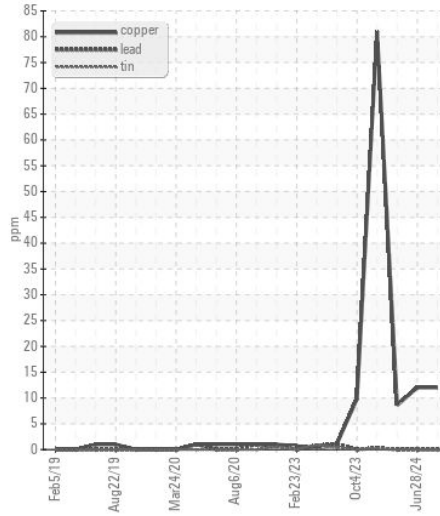
Ferrous Alloys



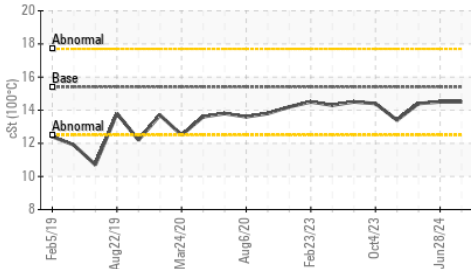
Base Number



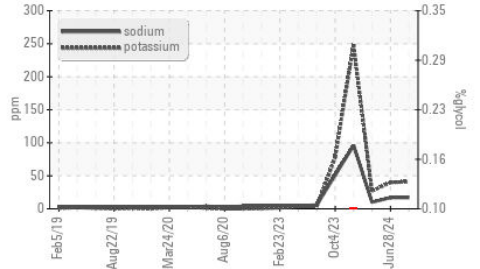
Non-ferrous Metals



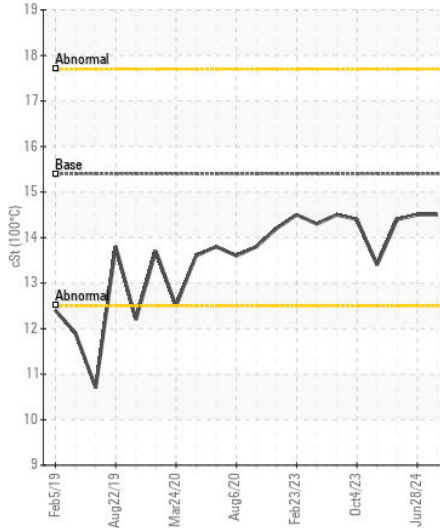
Viscosity @ 100°C



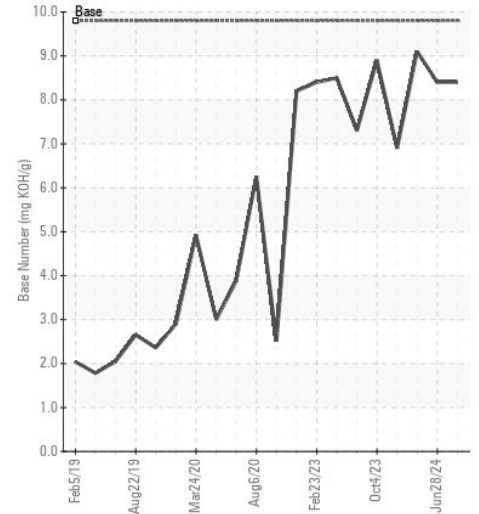
Glycol Contamination



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0125196

Lab Number : 06229554

Unique Number : 11113047

Test Package : FLEET (Additional Tests: Glycol)

Received : 05 Jul 2024

Tested : 09 Jul 2024

Diagnosed : 09 Jul 2024 - Jonathan Hester

GFL Environmental - 865 - East Mount Hauling

7213 East Mount Houston Road

Houston, TX

US 77050

Contact: Saul Castillo

saul.castillo@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)