



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(62A0YN3) ALEXANDER CITY
Machine Id
411000-411000
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0079727	GFL0091348	GFL0089932
Sample Date		Client Info		09 May 2024	17 Apr 2024	25 Mar 2024
Machine Age	hrs	Client Info		9230	9044	8855
Oil Age	hrs	Client Info		3394	3208	3019
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	15	11	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>15	2	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	8	7	1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<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.

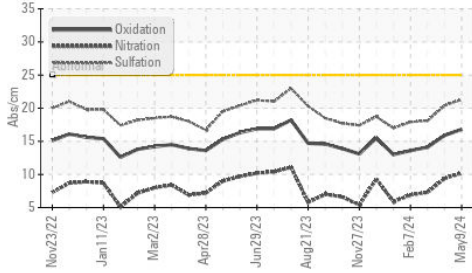
Silicon	ppm	ASTM D5185m	>25	7	6	4
Potassium	ppm	ASTM D5185m	>20	4	<1	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.2	9.4	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	20.4	18.1
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

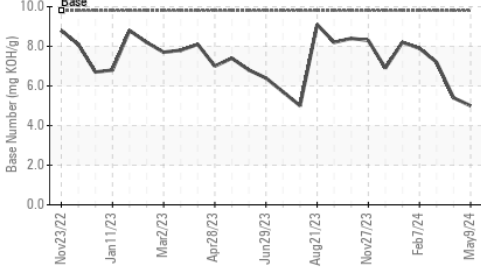
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	5	2
Boron	ppm	ASTM D5185m	0	2	3	8
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	56	61
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	765	779	958
Calcium	ppm	ASTM D5185m	1070	995	976	1138
Phosphorus	ppm	ASTM D5185m	1150	810	783	1039
Zinc	ppm	ASTM D5185m	1270	1041	974	1259
Sulfur	ppm	ASTM D5185m	2060	2503	2738	3712
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	15.9	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.0	5.4	7.2
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.9	12.7

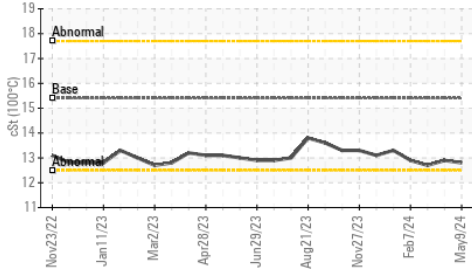
FT-IR (Direct Trend)



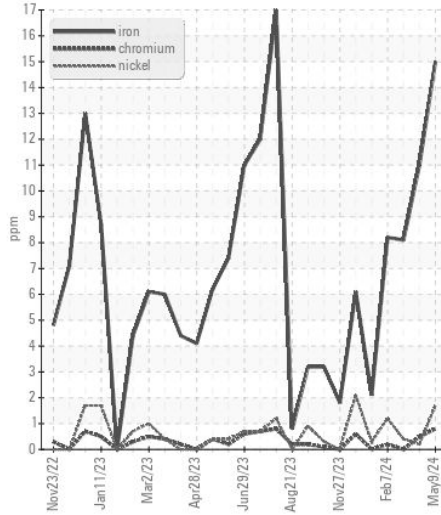
Base Number



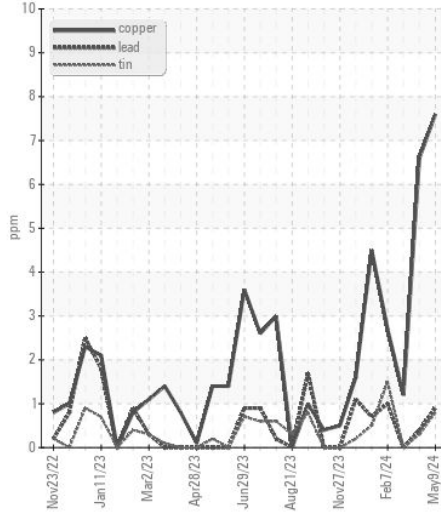
Viscosity @ 100°C



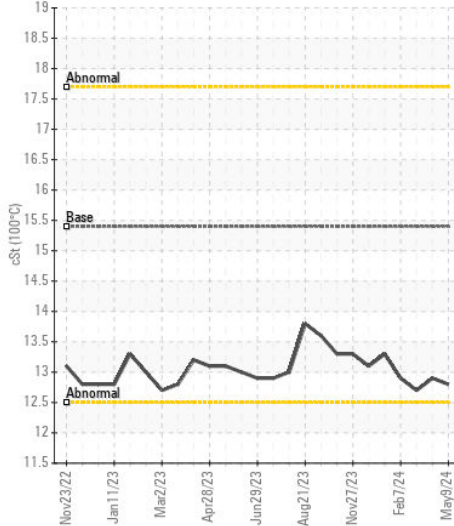
Ferrous Alloys



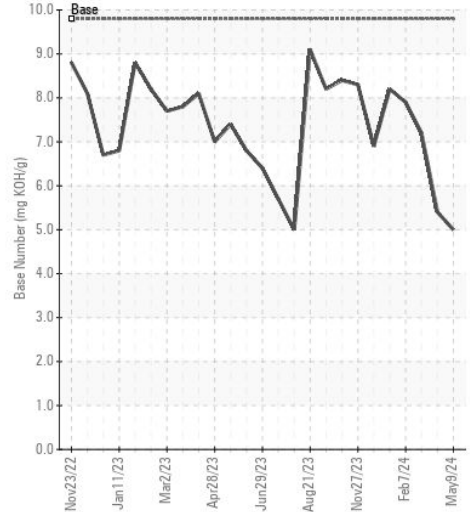
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0079727
Lab Number : 06178553
Unique Number : 11029879
Test Package : FLEET

Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Wes Davis

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: RICHARD HATFIELD
 rhatfield@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)

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F: