



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(P587730)

Machine Id
2573

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Unsure why the hours are so off. Current hours is 23426)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110365	GFL0110377	GFL0110373
Sample Date		Client Info		16 May 2024	15 Feb 2024	12 Feb 2024
Machine Age	hrs	Client Info		23426	22862	22824
Oil Age	hrs	Client Info		23000	0	22000
Filter Age	hrs	Client Info		23000	0	22000
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	23	4	21
Chromium	ppm	ASTM D5185m	>5	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	1	1
Lead	ppm	ASTM D5185m	>150	5	<1	3
Copper	ppm	ASTM D5185m	>90	<1	<1	2
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<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.

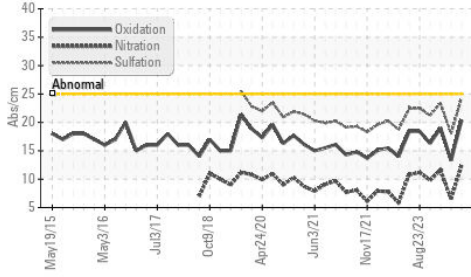
Silicon	ppm	ASTM D5185m	>35	7	4	6
Potassium	ppm	ASTM D5185m	>20	14	4	8
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	1.4	0.2	1.4
Nitration	Abs/cm	*ASTM D7624	>20	12.4	6.5	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.3	18.0	23.4
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

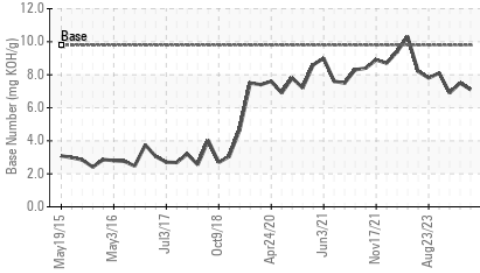
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		16	0	4
Boron	ppm	ASTM D5185m	0	15	9	15
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	72	60	68
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	975	890	868
Calcium	ppm	ASTM D5185m	1070	1128	1062	1113
Phosphorus	ppm	ASTM D5185m	1150	1134	988	1006
Zinc	ppm	ASTM D5185m	1270	1288	1147	1156
Sulfur	ppm	ASTM D5185m	2060	3519	3682	3411
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	13.3	19.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.1	7.5	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.7	13.2

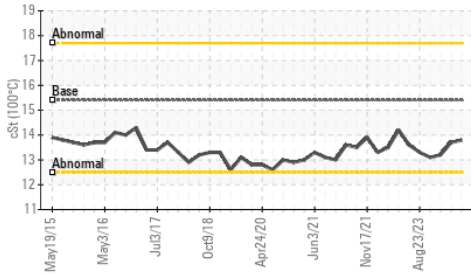
FT-IR (Direct Trend)



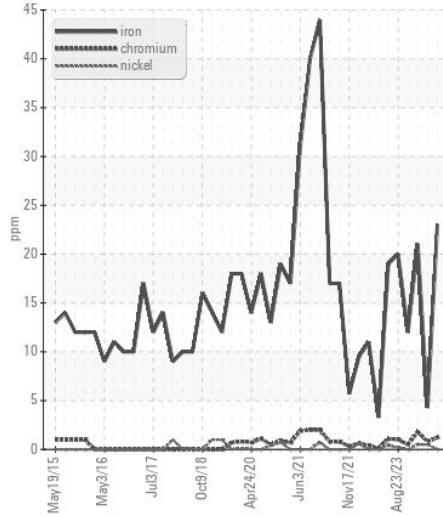
Base Number



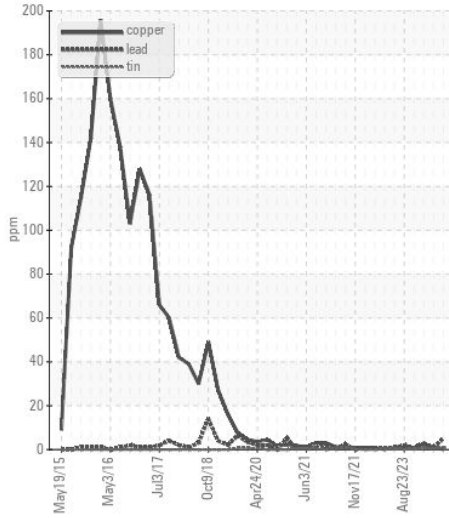
Viscosity @ 100°C



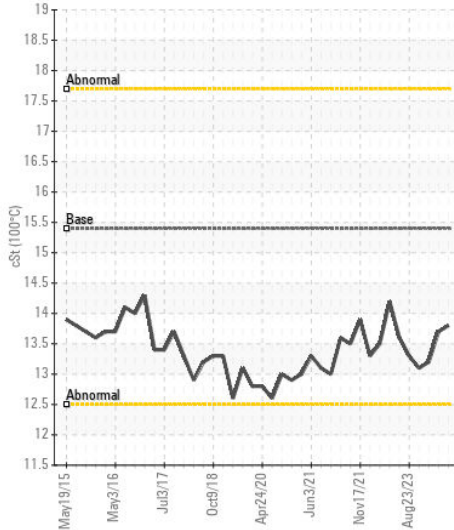
Ferrous Alloys



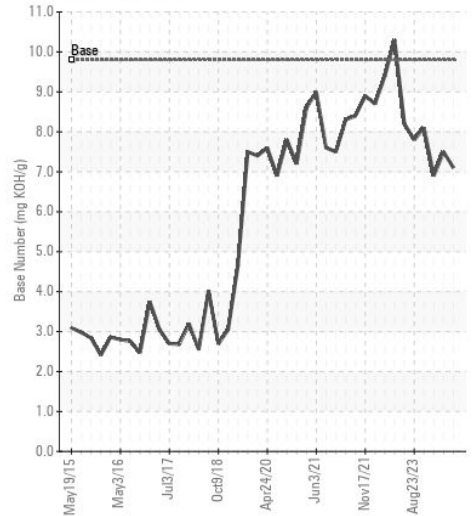
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110365
Lab Number : 06187078
Unique Number : 11043830
Test Package : FLEET

Received : 21 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Sean Felton

GFL Environmental - 031 - Greenville/Spartanburg
 1635 Antioch Church Rd
 Piedmont, SC
 US 29673
 Contact: TECHNICIAN ACCOUNT
 catherine.anastasio@wearcheck.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)

T:
F: