



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
525065-130
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108494	GFL0066045	GFL0060330
Sample Date		Client Info		06 Feb 2024	23 Aug 2023	01 Mar 2023
Machine Age	hrs	Client Info		0	0	12745
Oil Age	hrs	Client Info		0	0	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	37	44	35
Chromium	ppm	ASTM D5185m	>5	2	2	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	4	6	6
Lead	ppm	ASTM D5185m	>30	10	5	4
Copper	ppm	ASTM D5185m	>150	4	1	2
Tin	ppm	ASTM D5185m	>5	1	3	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

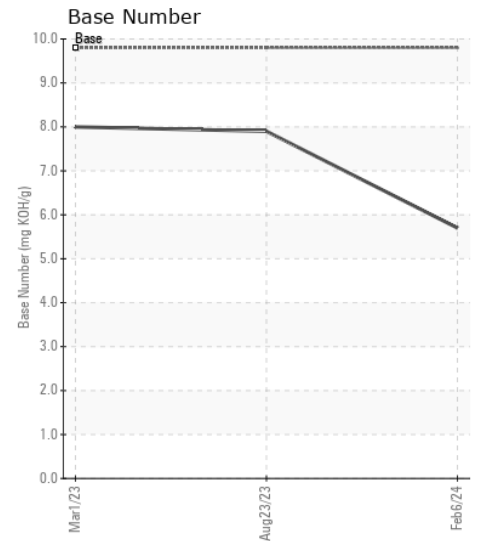
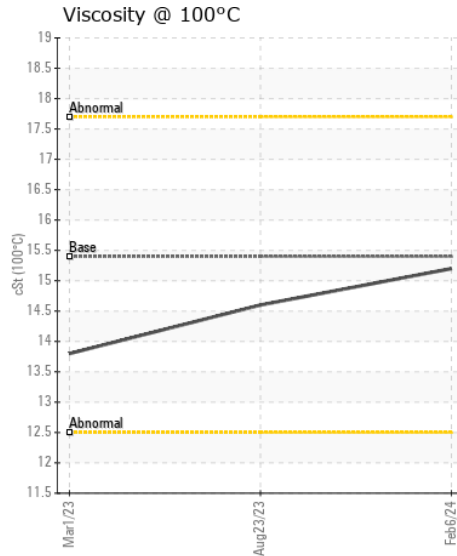
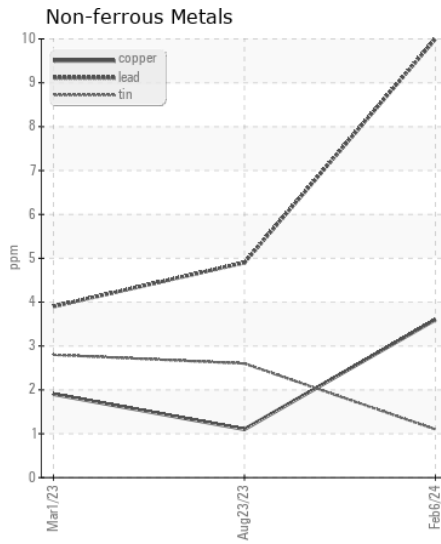
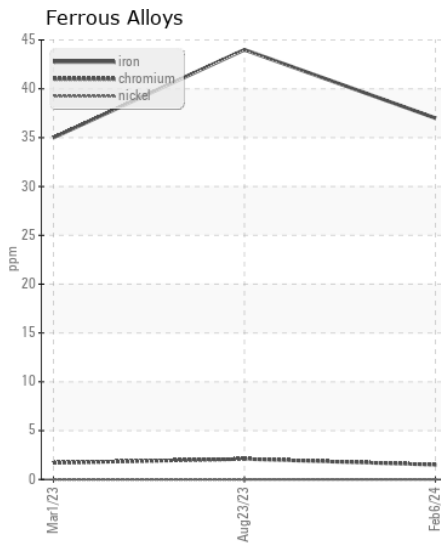
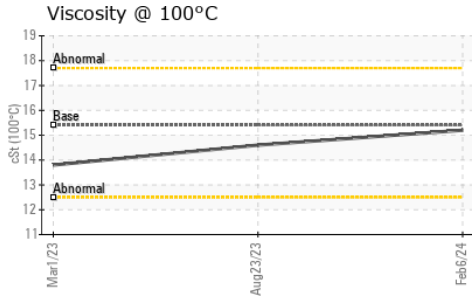
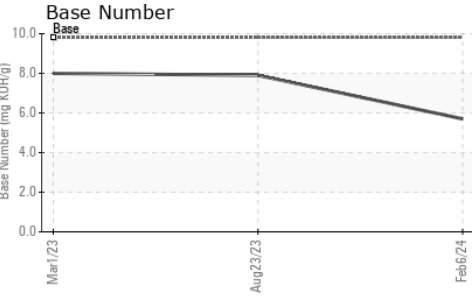
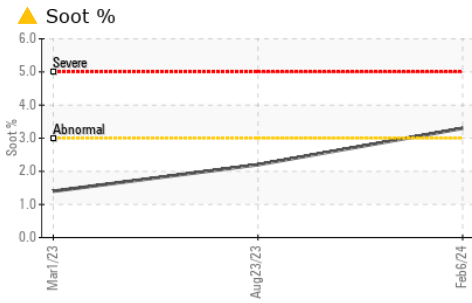
There is an abnormal amount of solids and carbon present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	5	6
Potassium	ppm	ASTM D5185m	>20	<1	1	3
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	▲ 3.3	2.2	1.4
Nitration	Abs/cm	*ASTM D7624	>20	9.3	8.4	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	21.9	20.6
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		2	4	2
Boron	ppm	ASTM D5185m	0	5	19	19
Barium	ppm	ASTM D5185m	0	0	0	2
Molybdenum	ppm	ASTM D5185m	60	58	65	64
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	1010	1014	993	869
Calcium	ppm	ASTM D5185m	1070	1157	1175	1157
Phosphorus	ppm	ASTM D5185m	1150	1021	1044	976
Zinc	ppm	ASTM D5185m	1270	1263	1294	1188
Sulfur	ppm	ASTM D5185m	2060	2912	3704	2903
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	14.0	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.7	7.9	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	15.2	14.6	13.8



Certificate L2367

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

Sample No. : GFL0108494

Lab Number : 06085648

Unique Number : 10873093

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 12 Feb 2024

Tested : 13 Feb 2024

Diagnosed : 13 Feb 2024 - Jonathan Hester

GFL Environmental - 904 - Chippewa Falls HC

11888 & 11863 30th Avenue

Chippewa Falls, WI

US 54729

Contact: Andy Kane

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: (715)202-3420

F: