



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
711010
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0119142	GFL0115469	GFL0094231
Sample Date		Client Info		03 Jul 2024	22 Mar 2024	08 Dec 2023
Machine Age	hrs	Client Info		7830	7000	6175
Oil Age	hrs	Client Info		7005	825	711
Filter Age	hrs	Client Info		7005	825	711
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	22	21	5
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	4	2	1
Lead	ppm	ASTM D5185m	>30	1	1	<1
Copper	ppm	ASTM D5185m	>35	2	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	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.

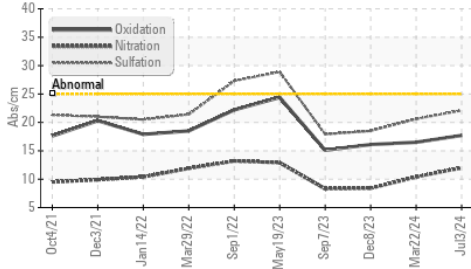
Silicon	ppm	ASTM D5185m	>+100	4	3	3
Potassium	ppm	ASTM D5185m	>20	20	10	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		1.1	1.5	0
Nitration	Abs/cm	*ASTM D7624	>20	12.0	10.4	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	20.6	18.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

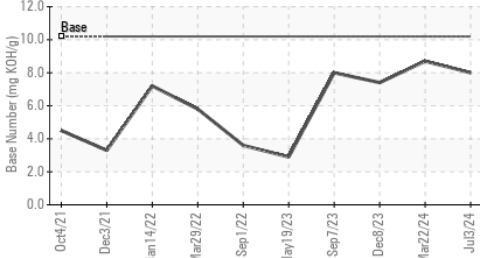
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		30	17	4
Boron	ppm	ASTM D5185m	50	7	4	26
Barium	ppm	ASTM D5185m	5	0	0	11
Molybdenum	ppm	ASTM D5185m	50	64	59	50
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	889	889	542
Calcium	ppm	ASTM D5185m	1510	1415	1066	1460
Phosphorus	ppm	ASTM D5185m	780	1064	1049	759
Zinc	ppm	ASTM D5185m	870	1319	1255	912
Sulfur	ppm	ASTM D5185m	2040	3078	3441	2715
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	16.5	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	8.0	8.7	7.4
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	12.6	14.6

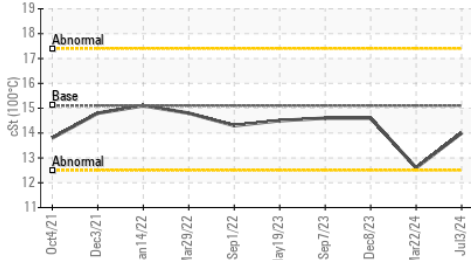
FT-IR (Direct Trend)



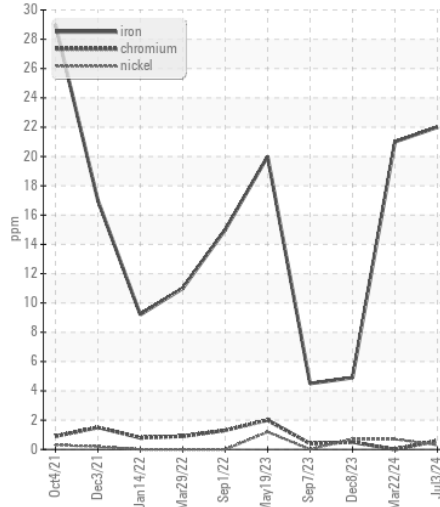
Base Number



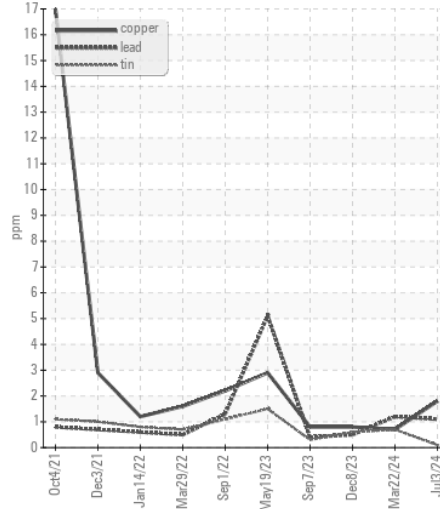
Viscosity @ 100°C



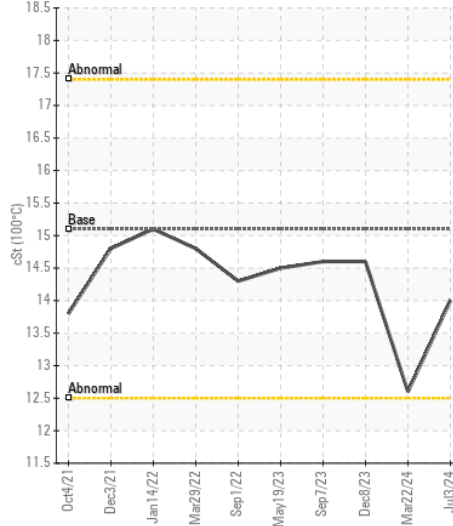
Ferrous Alloys



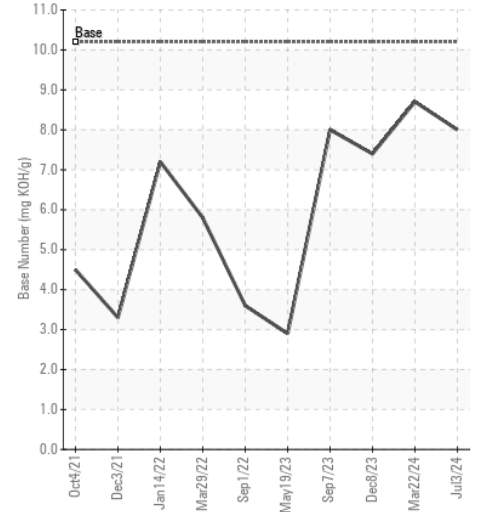
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0119142

Lab Number : 06229965

Unique Number : 11113458

Test Package : FLEET

Received : 08 Jul 2024

Tested : 09 Jul 2024

Diagnosed : 09 Jul 2024 - Don Baldrige

GFL Environmental - 882 - Gainesville

5002 SW 41st Blvd

Gainesville, FL

US 32608

Contact: ROBERT CLARK

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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)