



Machine Id
3491C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (30 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0082436	GFL0050800	PCA0061376
Sample Date		Client Info		05 Jan 2024	22 Feb 2023	14 Oct 2022
Machine Age	hrs	Client Info		97464	13324	12371
Oil Age	hrs	Client Info		97464	987	1137
Filter Age	hrs	Client Info		97464	987	1137
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	▲ 60	18	15
Chromium	ppm	ASTM D5185m	>4	3	<1	1
Nickel	ppm	ASTM D5185m	>2	2	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	4	2	3
Lead	ppm	ASTM D5185m	>30	2	<1	2
Copper	ppm	ASTM D5185m	>35	3	<1	2
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Sodium and/or potassium levels are high.

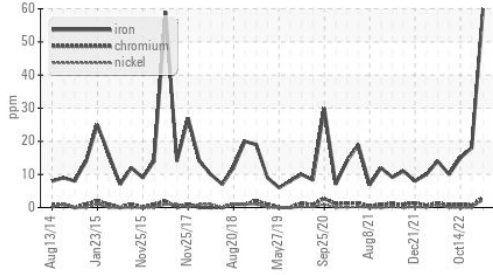
Silicon	ppm	ASTM D5185m	>+100	12	4	5
Potassium	ppm	ASTM D5185m	>20	▲ 321	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.9	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	23.9	25.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	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

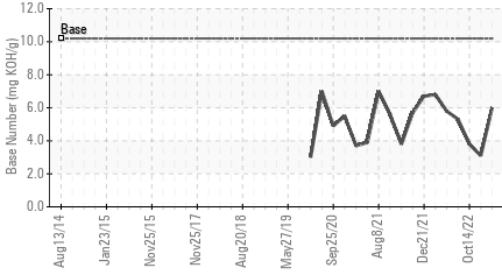
The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		▲ 99	7	8
Boron	ppm	ASTM D5185m	50	8	1	4
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	57	50	52
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	560	536	495	534
Calcium	ppm	ASTM D5185m	1510	1592	1640	1627
Phosphorus	ppm	ASTM D5185m	780	686	631	669
Zinc	ppm	ASTM D5185m	870	971	869	934
Sulfur	ppm	ASTM D5185m	2040	2356	2307	2847
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	19.0	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	6.0	3.1	3.8
Visc @ 100°C	cSt	ASTM D445	15.1	14.6	14.3	14.6

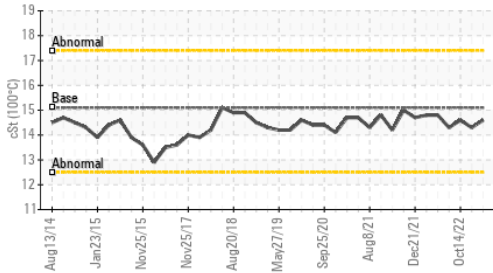
▲ Ferrous Alloys



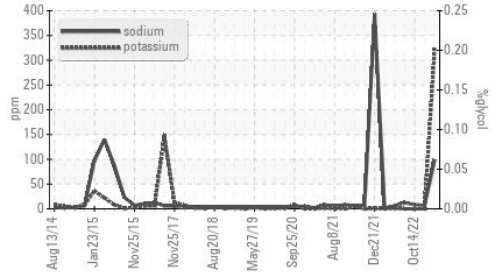
Base Number



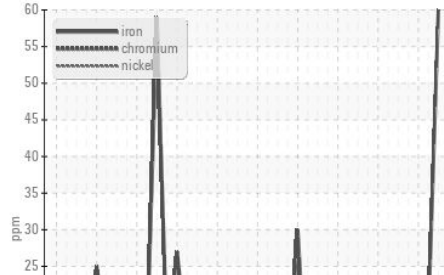
Viscosity @ 100°C



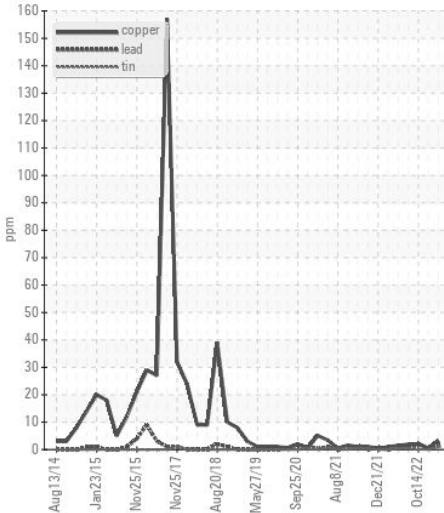
Glycol Contamination



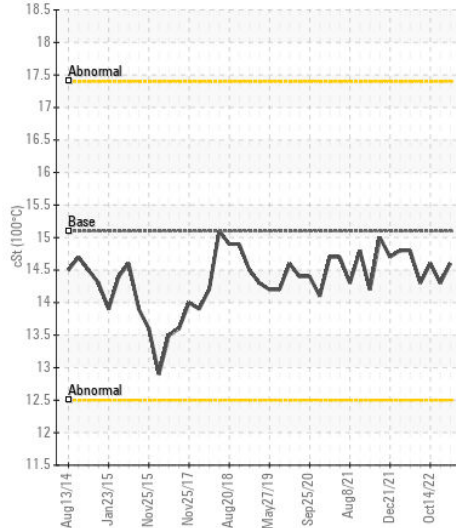
▲ Ferrous Alloys



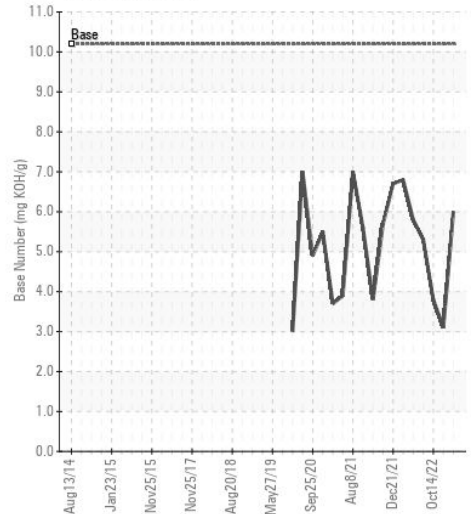
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082436 **Received** : 09 Jan 2024
Lab Number : 06055197 **Diagnosed** : 10 Jan 2024
Unique Number : 10821146 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: DONALD CRAVEN
 dcraven@gflenv.com
 T:
 F: (910)253-4179

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)