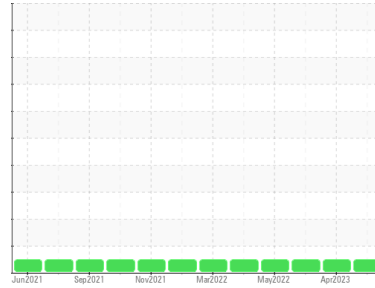




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
930012

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history 1	history 2	
Sample Number	Client Info	GFL0082405	GFL0050766	PCA0061373	
Sample Date	Client Info	05 Jul 2023	25 Apr 2023	29 Sep 2022	
Machine Age	hrs	Client Info	7157	0	5270
Oil Age	hrs	Client Info	1215	0	1159
Oil Changed	Client Info	Changed	N/A	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history 1	history 2		
Iron	ppm	ASTM D5185m	>50	8	5	6
Chromium	ppm	ASTM D5185m	>4	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	<1	2	2
Lead	ppm	ASTM D5185m	>30	17	1	10
Copper	ppm	ASTM D5185m	>35	2	0	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history 1	history 2		
Boron	ppm	ASTM D5185m	50	8	6	4
Barium	ppm	ASTM D5185m	5	<1	0	0
Molybdenum	ppm	ASTM D5185m	50	55	55	54
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	607	592	555
Calcium	ppm	ASTM D5185m	1510	1806	1691	1698
Phosphorus	ppm	ASTM D5185m	780	808	767	740
Zinc	ppm	ASTM D5185m	870	1014	1059	905
Sulfur	ppm	ASTM D5185m	2040	2880	2682	2748

CONTAMINANTS

method	limit/base	current	history 1	history 2		
Silicon	ppm	ASTM D5185m	>+100	7	6	7
Sodium	ppm	ASTM D5185m		10	8	5
Potassium	ppm	ASTM D5185m	>20	2	0	0

INFRA-RED

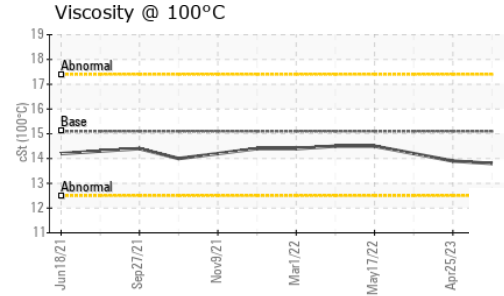
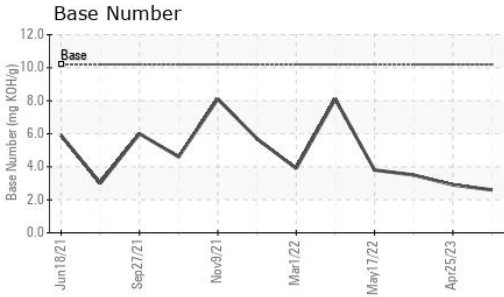
method	limit/base	current	history 1	history 2		
Soot %	%	*ASTM D7844		0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.0	11.6	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.2	25.3	28.5

FLUID DEGRADATION

method	limit/base	current	history 1	history 2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.7	21.2	24.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	2.6	2.9	3.5



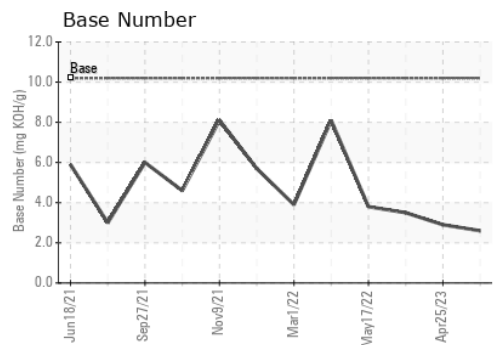
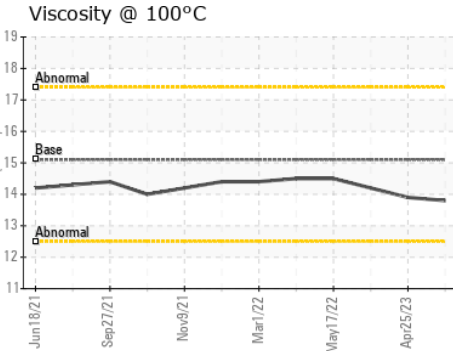
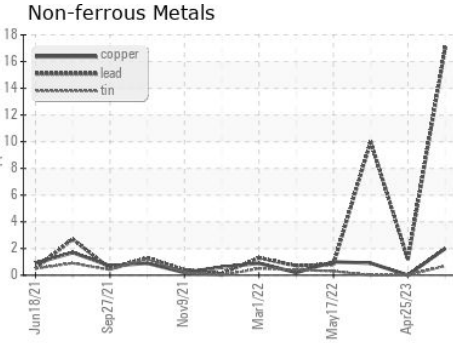
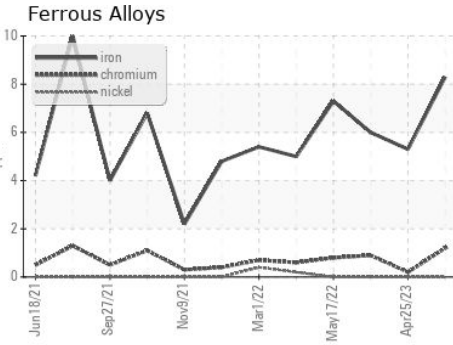
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.1	13.8	13.9	14.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082405 **Received** : 06 Jul 2023
Lab Number : 05891034 **Diagnosed** : 07 Jul 2023
Unique Number : 10546844 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: TOMMY DEVINE
 tommy.devine@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)