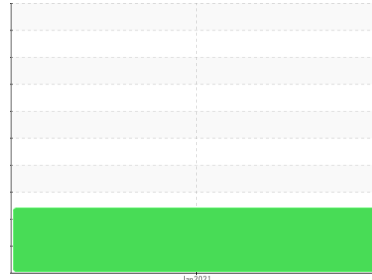




OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id
928027-1155
 Component
Hydraulic System
 Fluid
PETRO CANADA ENVIRON AW 46 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. The chromium level is abnormal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0018644	---	---
Sample Date	Client Info		25 Jan 2021	---	---
Machine Age	hrs	Client Info	9057	---	---
Oil Age	hrs	Client Info	9057	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	▲ 131	---	---
Chromium	ppm	ASTM D5185m >10	▲ 44	---	---
Nickel	ppm	ASTM D5185m >4	<1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m	<1	---	---
Aluminum	ppm	ASTM D5185m >5	4	---	---
Lead	ppm	ASTM D5185m >4	<1	---	---
Copper	ppm	ASTM D5185m >15	5	---	---
Tin	ppm	ASTM D5185m >4	<1	---	---
Antimony	ppm	ASTM D5185m	0	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	6	---	---
Barium	ppm	ASTM D5185m 0	<1	---	---
Molybdenum	ppm	ASTM D5185m 0	4	---	---
Manganese	ppm	ASTM D5185m 0	2	---	---
Magnesium	ppm	ASTM D5185m 0	34	---	---
Calcium	ppm	ASTM D5185m 0	157	---	---
Phosphorus	ppm	ASTM D5185m 485	368	---	---
Zinc	ppm	ASTM D5185m 0	460	---	---
Sulfur	ppm	ASTM D5185m 1090	1005	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	8	---	---
Sodium	ppm	ASTM D5185m	21	---	---
Potassium	ppm	ASTM D5185m >20	6	---	---

FLUID CLEANLINESS

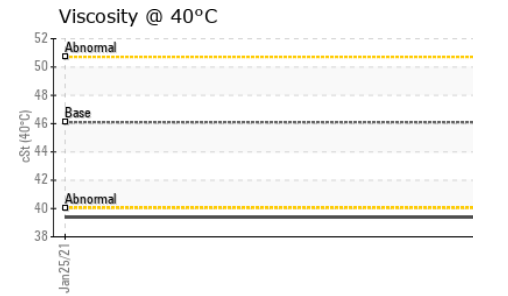
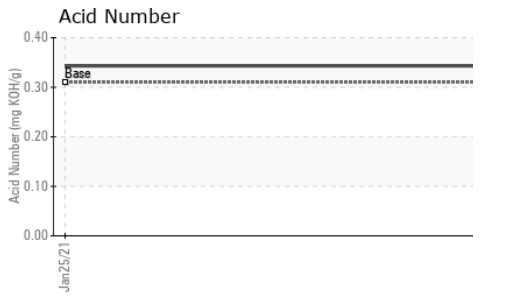
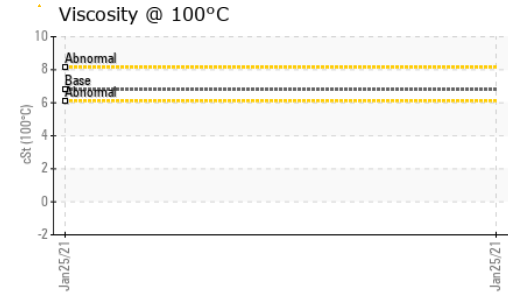
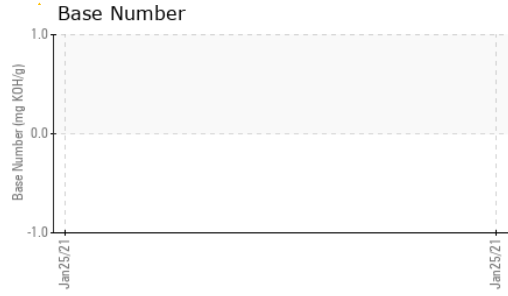
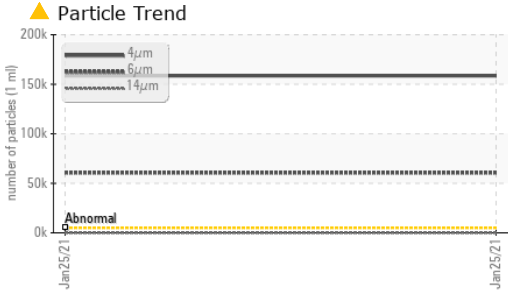
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 158509	---	---
Particles >6µm	ASTM D7647	>1300	▲ 60692	---	---
Particles >14µm	ASTM D7647	>160	18	---	---
Particles >21µm	ASTM D7647	>40	2	---	---
Particles >38µm	ASTM D7647	>10	0	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 24/23/11	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.31	0.343	---	---



OIL ANALYSIS REPORT



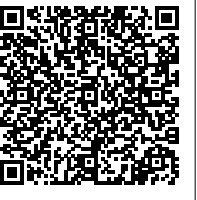
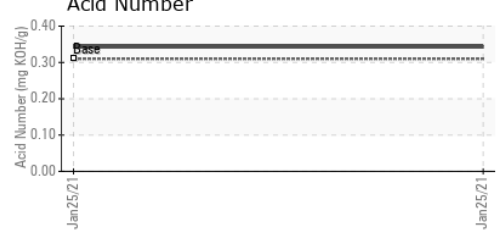
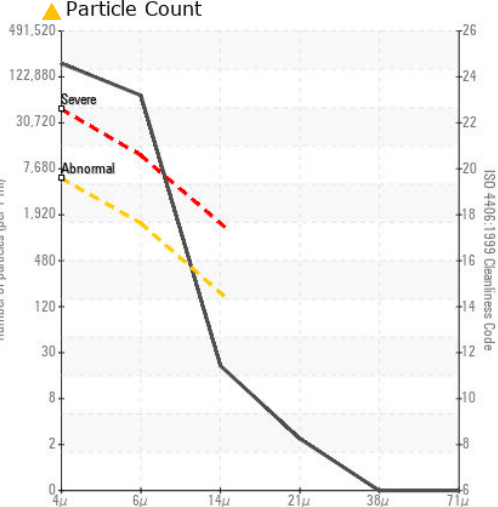
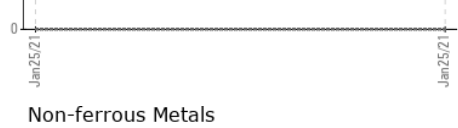
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.1	39.4	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0018644 **Received** : 09 Feb 2021
Lab Number : 05178241 **Diagnosed** : 10 Feb 2021
Unique Number : 9363530 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: FT-IR, KV100, TBN)

GFL Environmental - 622 - Traverse City Hauling
 160 Hughes Dr
 Traverse City, MI
 US 49686
Contact: GARY BREWER

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)