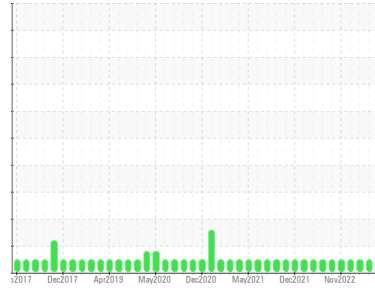




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
GFL035
 Machine Id
2634
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 SDE SAE 15W40 (40 QTS)

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	history1	history2
Sample Number	Client Info	GFL0085149	GFL0071565	GFL0071542
Sample Date	Client Info	09 Nov 2023	15 Aug 2023	24 May 2023
Machine Age	hrs	9999	9999	9999
Oil Age	hrs	600	600	600
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >165	25	18	16
Chromium	ppm ASTM D5185m >5	1	<1	1
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m >2	<1	<1	<1
Silver	ppm ASTM D5185m >2	0	0	<1
Aluminum	ppm ASTM D5185m >20	2	3	3
Lead	ppm ASTM D5185m >150	5	2	2
Copper	ppm ASTM D5185m >90	<1	<1	<1
Tin	ppm ASTM D5185m >5	<1	<1	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	3	<1	4
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m	67	65	68
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	957	1038	1044
Calcium	ppm ASTM D5185m	1180	1172	1216
Phosphorus	ppm ASTM D5185m 760	1078	1066	1137
Zinc	ppm ASTM D5185m 800	1291	1322	1374
Sulfur	ppm ASTM D5185m 3000	2729	3598	3686

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	9	8	7
Sodium	ppm ASTM D5185m	7	6	6
Potassium	ppm ASTM D5185m >20	3	3	3

INFRA-RED

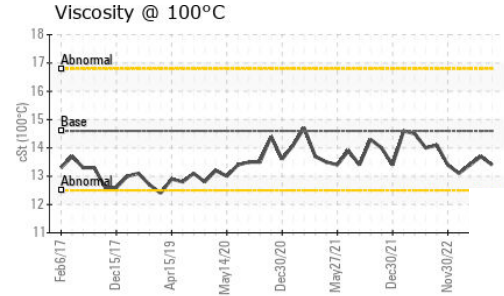
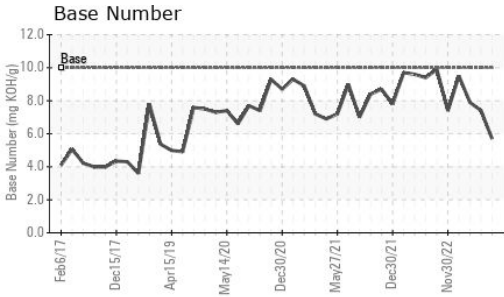
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	0.6	0.5	0.5
Nitration	Abs/cm *ASTM D7624 >20	11.9	10.7	9.9
Sulfation	Abs/.1mm *ASTM D7415 >30	23.8	21.7	21.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	21.5	18.9	17.8
Base Number (BN)	mg KOH/g ASTM D2896 10	5.7	7.4	7.9



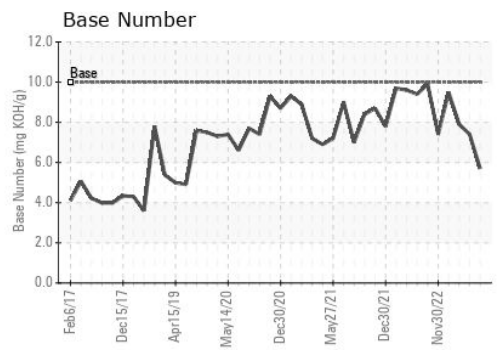
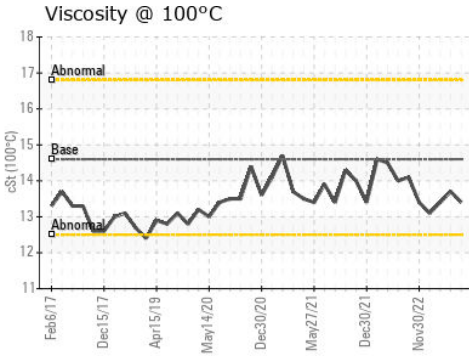
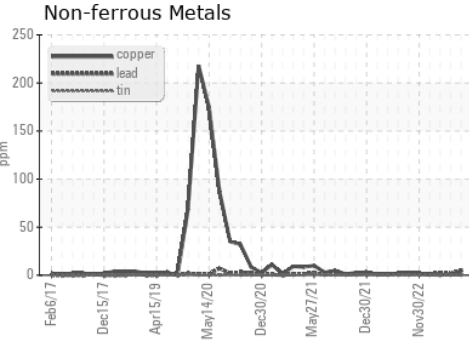
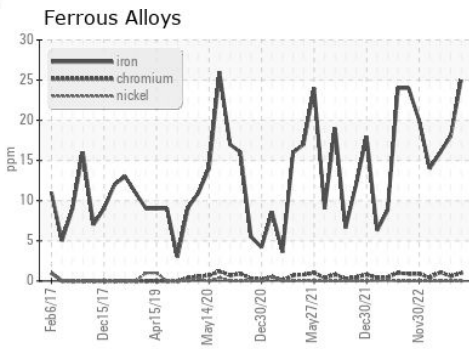
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.6	13.4	13.7	13.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085149 **Received** : 10 Nov 2023
Lab Number : **06003959** **Diagnosed** : 14 Nov 2023
Unique Number : 10737721 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 035 - Greensboro
 1236 Elon Place
 High Point, NC
 US 27263
 Contact: JORGE COSTA
 jorge.costa@gflenv.com
 T: (336)668-3712
 F:

Certificate L2367
 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)