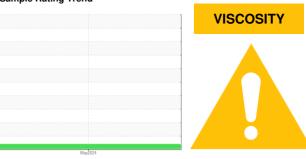


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id 519004

Component

Diesel Engine

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)** 

## **DIAGNOSIS**

### Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

### Contamination

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

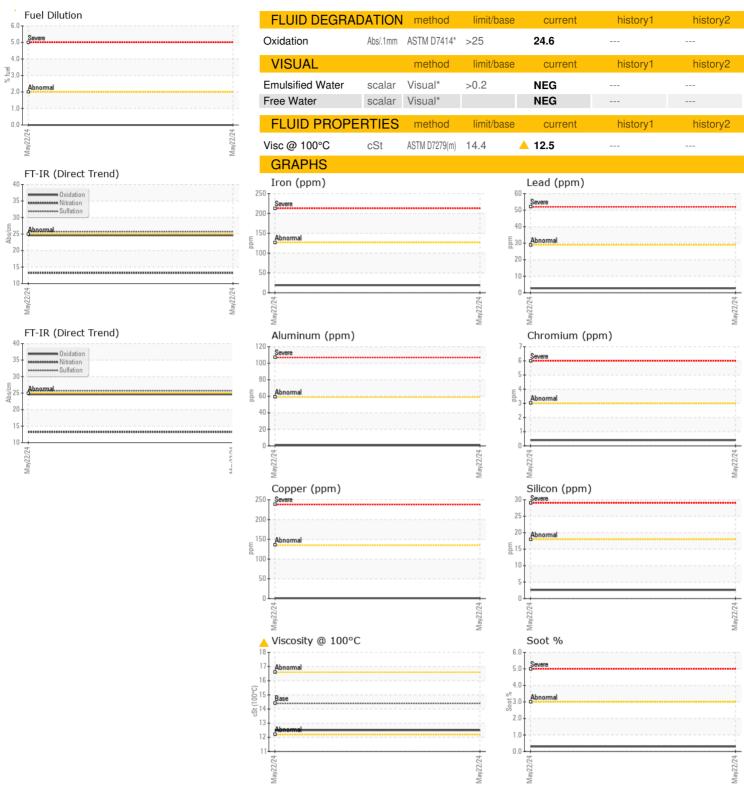
## Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Company   Comp				1	May2024		
Sample Number   Client Info   GFL0107929       Sample Date   Client Info   22 May 2024       Client Info   400       Dil Age   kms   Client Info   400       Dil Changed   Client Info   400       Dil Changed   Client Info   ABNORMAL       CONTAMINATION   method   limit/base   current   history1   history2     Water   WC Method   NEG       WEAR METALS   method   limit/base   current   history1   history2     WEAR METALS   method   limit/base   current   history1   method   limit/base   limit							
Contact   Cont	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age   kms	Sample Number		Client Info		GFL0107929		
Dil Age	Sample Date		Client Info		22 May 2024		
Client Info	Machine Age	kms	Client Info		5311		
ABNORMAL	Oil Age	kms	Client Info		400		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info		Changed		
Water   WC Method   VC   NEG   WC Method   WC Method   WC	Sample Status				ABNORMAL		
WEAR METALS	CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >127         19             Chromium         ppm         ASTM D5185(m)         >3         <1	Water		WC Method	>0.2	NEG		
Post	Glycol		WC Method		NEG		
Chromium	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel   ppm   ASTM D5185(m)   >30   0	ron	ppm	ASTM D5185(m)	>127	19		
Description	Chromium	ppm	ASTM D5185(m)	>3	<1		
Silver	Nickel	ppm	ASTM D5185(m)	>30	0		
ASTM D5185(m)   >59	Titanium	ppm	ASTM D5185(m)	>2	0		
Lead	Silver	ppm	ASTM D5185(m)	>2	0		
Copper	Aluminum	ppm	ASTM D5185(m)	>59	<1		
Antimony	Lead	ppm	ASTM D5185(m)	>29	3		
Antimony	Copper	ppm	ASTM D5185(m)	>135	<1		
Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         250         2             Barium         ppm         ASTM D5185(m)         10         0             Wolybdenum         ppm         ASTM D5185(m)         100         70             Wanganese         ppm         ASTM D5185(m)         450         1136             Wanganesium         ppm         ASTM D5185(m)         3000         1236             Calcium         ppm         ASTM D5185(m)         1150         1162             Phosphorus         ppm         ASTM D5185(m)         1350         1365             Sulfur         ppm         ASTM D5185(m)         4250         2594 </td <td>Tin</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&gt;2</td> <td>0</td> <td></td> <td></td>	Tin	ppm	ASTM D5185(m)	>2	0		
Beryllium	Antimony	ppm	ASTM D5185(m)		0		
ADDITIVES	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES	Beryllium	ppm	ASTM D5185(m)		0		
Boron   ppm   ASTM D5185(m)   250   2	Cadmium	ppm	ASTM D5185(m)		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185(m)         100         70             Magnesium         ppm         ASTM D5185(m)         450         1136             Calcium         ppm         ASTM D5185(m)         3000         1236             Phosphorus         ppm         ASTM D5185(m)         1150         1162             Zinc         ppm         ASTM D5185(m)         1350         1365             Sulfur         ppm         ASTM D5185(m)         4250         2594             Lithium         ppm         ASTM D5185(m)         4250         2594             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >18         3             Sodium         ppm         ASTM D5185(m)         >158         5             Potassium         ppm         ASTM D5185(m)         >20         1             Fuel         %	Boron	ppm	ASTM D5185(m)	250	2		
Manganese         ppm         ASTM D5185(m)         <1             Magnesium         ppm         ASTM D5185(m)         450         1136             Calcium         ppm         ASTM D5185(m)         3000         1236             Phosphorus         ppm         ASTM D5185(m)         1150         1162             Zinc         ppm         ASTM D5185(m)         1350         1365             Sulfur         ppm         ASTM D5185(m)         4250         2594             Lithium         ppm         ASTM D5185(m)         <1	Barium	ppm	ASTM D5185(m)	10	0		
Magnesium         ppm         ASTM D5185(m)         450         1136             Calcium         ppm         ASTM D5185(m)         3000         1236             Phosphorus         ppm         ASTM D5185(m)         1150         1162             Zinc         ppm         ASTM D5185(m)         1350         1365             Sulfur         ppm         ASTM D5185(m)         4250         2594             Lithium         ppm         ASTM D5185(m)         >18         3             Silicon         ppm         ASTM D5185(m)         >18         3             Potassium         ppm         ASTM D5185(m)         >20         1             Fuel         %	Molybdenum	ppm	ASTM D5185(m)	100	70		
Calcium	Manganese	ppm	ASTM D5185(m)		<1		
Phosphorus	Magnesium	ppm	ASTM D5185(m)	450	1136		
Zinc	Calcium	ppm	ASTM D5185(m)	3000	1236		
Sulfur   ppm   ASTM D5185(m)   4250   2594	Phosphorus	ppm	ASTM D5185(m)	1150	1162		
Lithium         ppm         ASTM D5185(m)         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >18         3             Sodium         ppm         ASTM D5185(m)         >158         5             Potassium         ppm         ASTM D5185(m)         >20         1             Fuel         %         ASTM D7593*         >2.0         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Zinc	ppm	ASTM D5185(m)	1350	1365		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >18         3             Sodium         ppm         ASTM D5185(m)         >158         5             Potassium         ppm         ASTM D5185(m)         >20         1             Fuel         %         ASTM D7593*         >2.0         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Sulfur	ppm	ASTM D5185(m)	4250	2594		
Silicon   ppm   ASTM D5185(m)   >18   3	Lithium	ppm	ASTM D5185(m)		<1		
Sodium   ppm   ASTM D5185(m)   >158   5         Potassium   ppm   ASTM D5185(m)   >20   1         Fuel   %   ASTM D7593*   >2.0   0.0         INFRA-RED   method   limit/base   current   history1   history2     Soot %   %   ASTM D7844*   >3   0.3         Nitration   Abs/cm   ASTM D7624*   >20   13.2	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185(m)         >20         1             Fuel         %         ASTM D7593*         >2.0         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Silicon	ppm	ASTM D5185(m)	>18	3		
Fuel         %         ASTM D7593*         >2.0         0.0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Sodium	ppm	ASTM D5185(m)	>158	5		
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Potassium	ppm	ASTM D5185(m)	>20	1		
Soot %         %         ASTM D7844*         >3         0.3             Nitration         Abs/cm         ASTM D7624*         >20         13.2	Fuel	%	ASTM D7593*	>2.0	0.0		
Nitration   Abs/cm   ASTM D7624*   >20   13.2	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	ASTM D7844*	>3	0.3		
	Nitration	Abs/cm		>20			
	Sulfation	Abs/.1mm	ASTM D7415*	>30			



# **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02638356

: GFL0107929 Unique Number : 5787518

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested** 

: 29 May 2024 : 30 May 2024 Diagnosed

: 30 May 2024 - Kevin Marson Test Package : MOB 1 ( Additional Tests: FUELDILUTION, PercentFuel )

Emerald Park, SK CA S4L 1B6 Contact: Kim Cunningham kcunningham@gflenv.com

GFL Environmental - 350 - Emeral Park Regina

2B Industrial Drive,, Great Plains Industrial Park,

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied. F: Contact/Location: Kim Cunningham - GFL350

T: