

# **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id 722003

Fluid

Component Diesel Engine

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

AE 15W40 ( 0	GAL)	May2020 J	an2021 Aug2021 Mar	022 Aug2022 Feb2023	Jan 2024	
SAMPLE INFOF	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0102864	GFL0102876	GFL007849
Sample Date		Client Info		27 Mar 2024	08 Jan 2024	24 Jul 2023
Machine Age	hrs	Client Info		28841	28377	27235
Dil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	_S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>120	4	5	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)		<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	45	48	27
Barium	ppm	ASTM D5185(m)	10	0	0	0
Volybdenum	ppm	ASTM D5185(m)	100	42	12	41
Vanganese	ppm	ASTM D5185(m)		0	0	<1
Vagnesium	ppm	ASTM D5185(m)	450	466	156	489
Calcium	ppm	ASTM D5185(m)	3000	1697	1917	1611
Phosphorus	ppm	ASTM D5185(m)	1150	727	911	790
Zinc	ppm	ASTM D5185(m)	1350	869	1096	869
Sulfur	ppm	ASTM D5185(m)	4250	2079	2853	2059
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	3	5
Sodium	ppm	ASTM D5185(m)	>158	2	3	2
Potassium	ppm	ASTM D5185(m)	>20	1	5	<1
Fuel	%	ASTM D7593*	>3.0	2.5	2.7	▲ 3.2
		method	limit/base	current	history1	history2
INFRA-RED						
	%	ASTM D7844*	>4	0	0	0.1
INFRA-RED Soot % Nitration	% Abs/cm		>4	0 9.5	0 10.0	0.1 9.7

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

#### Contamination

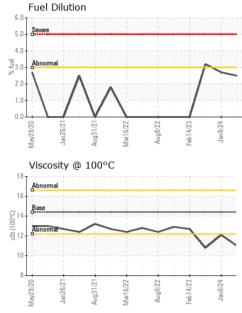
Light fuel dilution occurring. No other contaminants were detected in the oil.

#### **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.



# **OIL ANALYSIS REPORT**



	FLUID DEGRA	DATION	method				history
	Oxidation	Abs/.1mm	ASTM D7414*	>25	21.3	20.3	21.6
	VISUAL		method	limit/base	current	history1	history
-	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
	Free Water	scalar	Visual*		NEG	NEG	NEG
-	FLUID PROPE	RTIES	method	limit/base	current	history1	history
	Visc @ 100°C	cSt	ASTM D7279(m)	14.4	11.0	12.1	▲ 10.8
	GRAPHS						
	Iron (ppm)			100	Lead (ppm)		
	250 - Severe			80	Severe		
	200 -			60	•		
	50 - Abnormal			E 40	Abnormal		
	50			20			
-	0			0			
	May29/20 Jan26/21 Aug31/21	Mar16/22	Feb 14/23	Jan 8/24	May29/20 Jan26/21 Aud31/21	Mar16/22 Aug8/22	-eb14/23 Jan8/24
	Aluminum (ppm)	2 ×	ι. <u>Β</u>	, ,	Chromium (p	2	e r
	50 Severe			50			
	40 -			40	Severe		
	30			30 ਬੁ			
Ē	20 - Abnormal			20	Abnormal		
	10			10			
		22-	23 -	0	21	22	23
	May29/20 Jan26/21 Aug31/21	Mar16/22	Feb 14/23	Jan 8/24	May29/20 Jan26/21	Mar16/22 Aug8/22	Feb14/23 Jan8/24
	Copper (ppm)			Silicon (ppm)			
	100 Severe 350 - Abnormal			80 70	Severe		
	300			60 50			
mqq	200			<u>특</u> 40			
	150 - 100 -			30 20	Abnormal		
	50			10			
	May29/20	Mar16/22 -	Feb 14/23	Jan 8/24 -	May29/20	Mar16/22 - Aug8/22 -	Feb14/23 - Jan8/24 -
	-	-	Feb	P		Mar	Feb
	Viscosity @ 100°C	; ;			Soot %		
	Abnormal 16 -			6.0	Severe		
10-DI	14 - Base			5.0 >e4.0	Abnormal		
11 22	14- Abnormat		$\frown$	م نابع الم			
	10		~	2.0			
	8	2		0.0		2	4 3
	May29/20 Jan26/21 Aug31/21	Mar16/22	Feb 14/23	Jan 8/24	May29/20 Jan26/21 Aud31/21	Mar16/22 Aug8/22	Feb 1 4/23 Jan 8/24
	2 , 4	2	LL.		2 ' 4	2	<u>.</u>
-	WearCheck - C8-117 GFL0102864	5 Appleby Rece		ngton, ON L7L 8 Mar 2024	. 5H9 <b>GFL E</b>	nvironmental	- 246 - Wind 2700 Dezie
oer :	02625136	Teste	e <b>d</b> : 0	1 Apr 2024	n Marazz		Windsor,
	5750255 MOB 1 ( Additional Te	Diagr		Apr 2024 - Kevi	n warson	0	CA N8W 5 tact: Dave Va

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.

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CALA

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