

## **OIL ANALYSIS REPORT**

Sample Rating Trend





### Component

Diesel Engine

CHEVRON DELO 400 SAE 10W30 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

#### Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853297	WC0702859	WC0553942
Sample Date		Client Info		04 Dec 2023	03 Jan 2023	08 Aug 2022
Machine Age	kms	Client Info		370363	5474	235772
Oil Age	kms	Client Info		0	0	4841
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>130	20	40	40
Chromium	ppm	ASTM D5185(m)	>10	<1	1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	30	• 40	21
Lead	ppm	ASTM D5185(m)	>20	0	0	0
Copper	ppm	ASTM D5185(m)	>125	<1	2	1
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
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)		43	36	31
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		2	7	4
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		774	789	773
Calcium	ppm	ASTM D5185(m)		1411	1528	1541
Phosphorus	ppm	ASTM D5185(m)	1260	712	809	796
Zinc	ppm	ASTM D5185(m)	1400	816	851	847
Sulfur	ppm	ASTM D5185(m)		2525	2681	2648
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	8	7
Sodium	ppm	ASTM D5185(m)		3	3	3
Potassium	ppm	ASTM D5185(m)	>20	54	15	25
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.1	0.9	0.5
Nitration	Abs/cm	ASTM D7624*	>20	10.3	12.1	12.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	27.2	25.8



# **OIL ANALYSIS REPORT**

Viscosity @ 100°C 14 13 Abnorma 12 cst (100-c) 1 1 Ab 8 Apr4/22 -Aug8/22 -Jan3/23 -Jec4/23 -Nov7/21



bpm

ppm

FLUID DEGRADA	TION	method	limit/base	current	history1	history	2
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.4	20.9	20.8	
VISUAL		method	limit/base	current	history1	history	2
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	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	NEG	
FLUID PROPERT	IES	method	limit/base	current	history1	history	2
√isc @ 100°C	cSt	ASTM D7279(m)	11.1	11.3	11.8	11.6	
GRAPHS							
Iron (ppm)	,		50	Lead (ppm)			
			40	Severe	l I	1	-
Abnormal			E 30	Abnormal			
		   					1
1/21	g8/22	n3/23	c4/23	v7/21	g8/22	п3/23	c4/23
Approx. (and a	Aug	Jar	De	Ap Ap	Aur	La.	De
Aluminum (ppm)			25	Chromium (pp	om)		
Severe		~	20	Severe			
Abnormal			E 15	Abnormal		I	
		1	5		1	   	1
	~		0				-
Nov7/2 Apr4/22	Aug8/22	Jan3/23	Dec4/23	Nov7/2 Apr4/22	Aug8/22	Jan 3/23	Dec4/23
Copper (ppm)	-			Silicon (ppm)	- 44		
Severe		1	60	Severe			
			е 40	-			
Abnormal	1	1	a 20	Abnormal	1	l	-
							_
/22	122 -	/23 -	123	//21	- 727 -	- 123	/23 -
April	Augõ	Jan 3	Dec4	Nov.	Aug8	Jan3	Dec4
Viscosity @ 100°C				Soot %			
Abnormal			8.0	Abnormal	I	1	
Base			6.U		T T	1	
Abnormal			o 4.0				
			2.0				
1/21	3/22 -	3/23 -	0.0 +	1/21	3/22 -	3/23 -	1/23
Nov Apr4	Augé	Jan3	Dect	Nov Apr4	Augõ	Jan	Dec4
WearCheck - C8-117 WC0853297 F 02602111 E 5695196 E MOB 1 ( Additional 3	75 Apple Received Diagnose Diagnost	by Line, Burl d : 11   ed : 11   ician : We	lington, ON L Dec 2023 Dec 2023 s Davis	7L 5H9	Rush 74. M	<b>Truck Cent</b> 50 Torbram I lississauga, ( CA L4T 1	r <b>es</b> Rd. ON GS

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

ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number

**Unique Number Test Package**