

Machine Id 857-4910 Component Diesel Engine CHEVRON DELO 400 SAE 10W30 (--- GAL)

KE	CON	IMER	NDA I	ION	

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

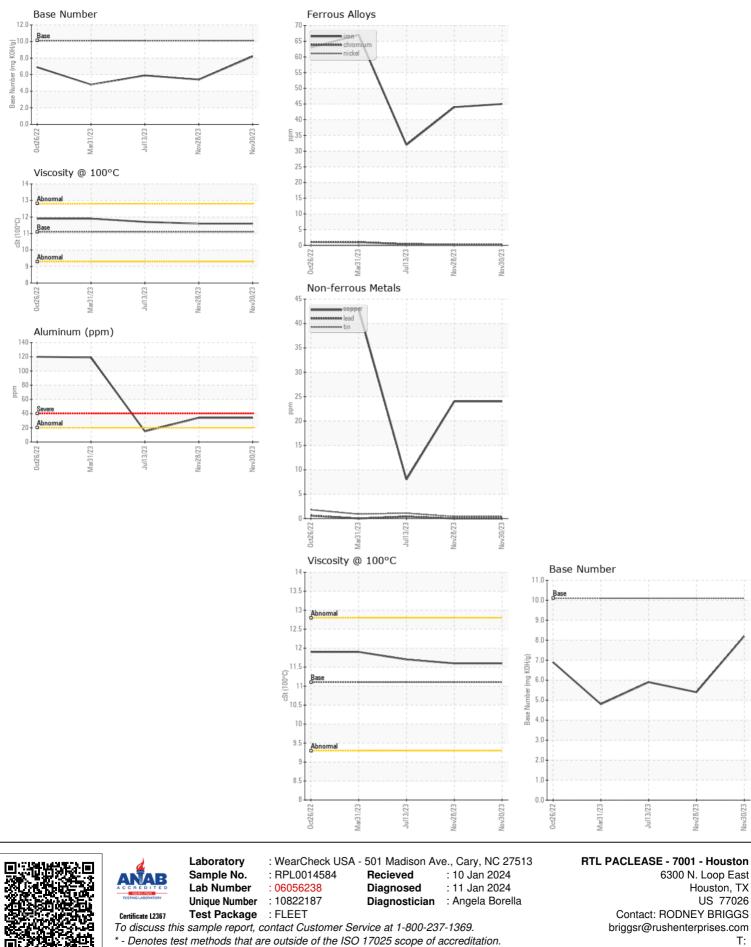
CONTAMINATION

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.

	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		RPL0014584	RPL0014593	RPL0010339
	Sample Date		Client Info		30 Nov 2023	28 Nov 2023	13 Jul 2023
	Machine Age	hrs	Client Info		1580	1581	28419
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	NORMAL	NORMAL
	Iron	ppm	ASTM D5185m	>100	45	44	32
	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	34	34	15
	Lead	ppm	ASTM D5185m	>40	0	0	<1
	Copper	ppm	ASTM D5185m	>330	24	24	8
	Tin	ppm	ASTM D5185m	>15	<1	<1	1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Ciliaan			. 05	10	4.4	10
	Silicon Potassium	ppm	ASTM D5185m ASTM D5185m	>25 >20	12 88	11 88	12 49
	Fuel	ppm				<1.0	<1.0
	Water		WC Method	>5	<1.0 NEG	<1.0 NEG	<1.0 NEG
			WC Method	>0.2			
	Glycol	0/		0	NEG 0.4	NEG	NEG
	Soot % Nitration	%	*ASTM D7844 *ASTM D7624	>3	0.4 10.6	0.3 10.7	0.3 11.4
	Sulfation	Abs/cm		>20		24.3	
		Abs/.1mm	*ASTM D7415	>30	23.8		23.1
	Silt	scalar	*Visual	NONE	NONE NONE	NONE	NONE
	Debris Sand/Dirt	scalar	*Visual			NONE	
		scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor Emulsified Water	scalar	*Visual	NORML	NORML NEG	NORML NEG	NORML
		scalar	*Visual	>0.2	NEG	NEG	NEG
	Sodium	ppm	ASTM D5185m		3	4	4
	Boron	ppm	ASTM D5185m		19	19	20
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		14	14	12
	Manganese	ppm	ASTM D5185m		0	0	2
	Magnesium	ppm	ASTM D5185m		766	750	805
	Calcium	ppm	ASTM D5185m		1405	1384	1555
	Phosphorus	ppm	ASTM D5185m	1260	751	764	771
	Zinc	ppm	ASTM D5185m	1400	896	882	924
	Sulfur	ppm	ASTM D5185m		3194	3213	3766
	Oxidation	Abs/.1mm	*ASTM D7414	>25	25.0	19.7	18.5
	Base Number (BN)	mg KOH/g	ASTM D2896	10.1	8.2	5.4	5.9
	Visc @ 100°C	cSt	ASTM D445	11.1	11.6	11.6	11.7

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.



* - 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)

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