

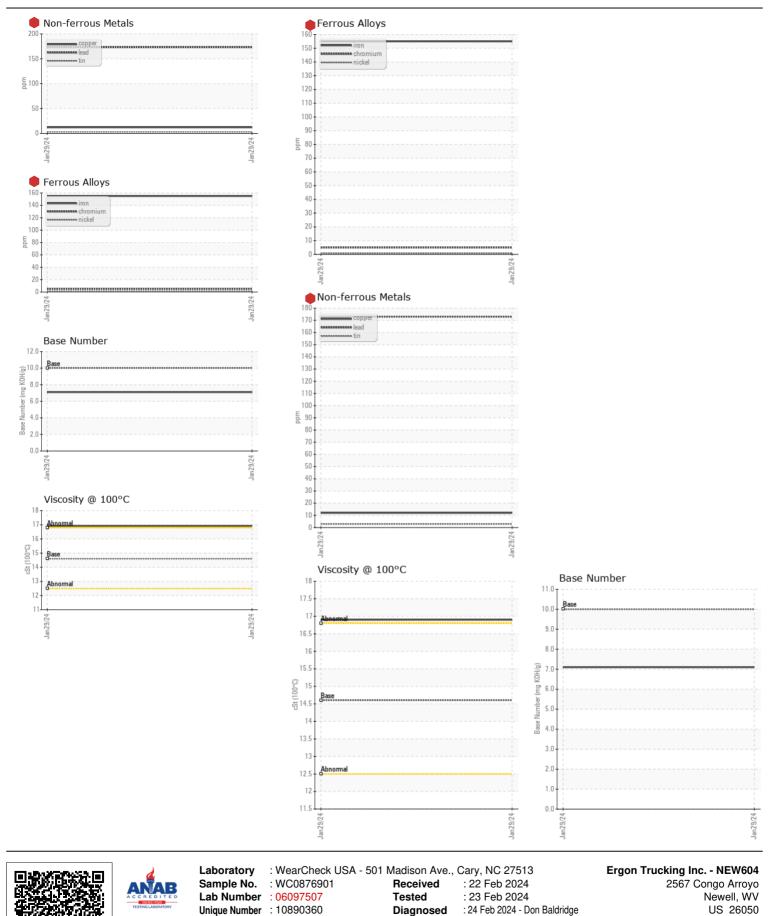
Machine Id **T1505** Component **Diesel Engine** Fluid

CHEVRON DELO 400 SDE SAE 15W40 (48 QTS)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.	Sample Number		Client Info		WC0876901		
	Sample Date	mala	Client Info		29 Jan 2024		
	Machine Age	mls	Client Info		388516		
	Oil Age	mls	Client Info		30000		
	Filter Age	mls	Client Info		30000		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				SEVERE		
WEAR	Iron	ppm	ASTM D5185m	>80	1 55		
Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.	Chromium	ppm	ASTM D5185m	>5	<u> </u>		
	Nickel	ppm	ASTM D5185m	>2	<1		
	Titanium	ppm	ASTM D5185m		2		
	Silver	ppm	ASTM D5185m	>3	0		
	Aluminum	ppm	ASTM D5185m		17		
	Lead	ppm	ASTM D5185m		173		
	Copper	ppm	ASTM D5185m		12		
	Tin	ppm	ASTM D5185m		3		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	13		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	19		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	1.2		
	Nitration	Abs/cm	*ASTM D7624	>20	16.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	33.1		
	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		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5		
	Boron	ppm	ASTM D5185m		118		
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		175		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m		2 941		
	Calcium	ppm	ASTM D5185m		2190		
	Phosphorus	ppm	ASTM D5185m	760	1025		
	Zinc		ASTM D5185m		1025		
	Sulfur	ppm ppm	ASTM D5185m		2894		
		Abs/.1mm	*ASTM D5165III				
	Oxidation				32.2		
	Base Number (BN)	nig KUH/g	ASTM D2896	14.0	7.1		

Visc @ 100°C cSt ASTM D445 14.6

16.9





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Owen Grace Page 2 of 2

Contact: JASON JULIAN

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