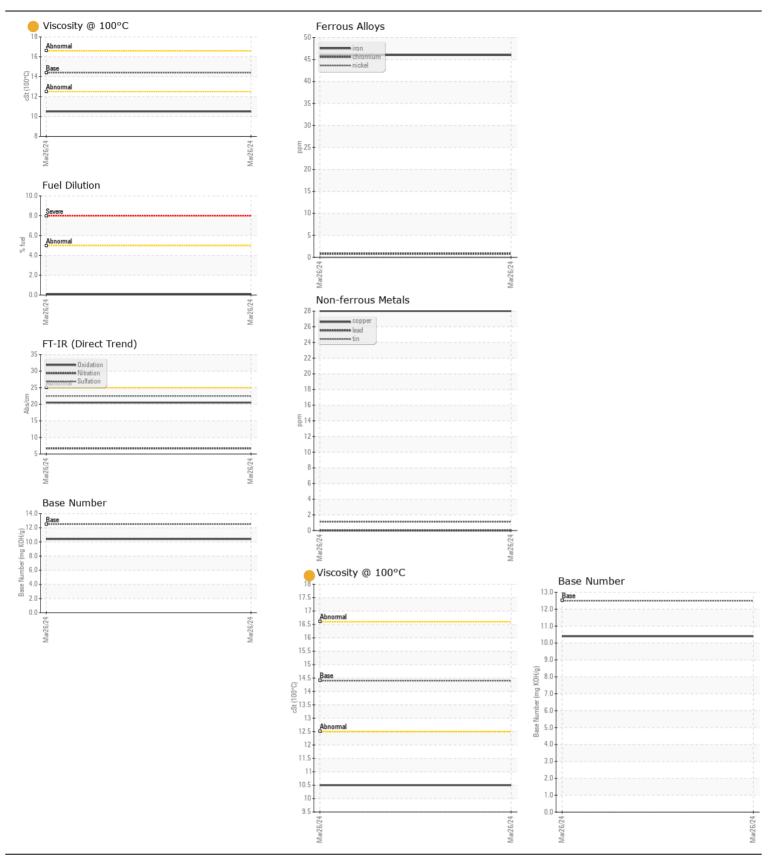
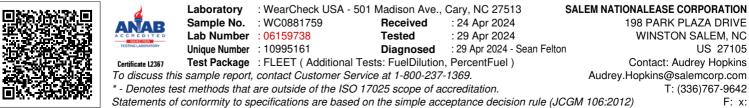


Machine Id **21404** Component **Diesel Engine** Fluid **CHEVRON DELO 400 MULTIGRADE 15W40 (--- QTS)**

	- (13)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		WC0881759		
	Sample Date		Client Info		26 Mar 2024		
	Machine Age	mls	Client Info		15708		
	Oil Age	mls	Client Info		14730		
	Filter Age	mls	Client Info		14730		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
WEAR	Iron	ppm	ASTM D5185m		46		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		15		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		28		
	Tin	ppm	ASTM D5185m	>15	1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Cilicon			. 05	7		
CONTAMINATION	Silicon	ppm	ASTM D5185m				
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		38		
	Fuel Water	%	ASTM D3524		0.1 NEG		
			WC Method WC Method	>0.2	NEG		
	Glycol	%		. 0	0.2		
	Soot % Nitration		*ASTM D7844 *ASTM D7624	>3 >20	0.2 6.7		
	Sulfation	Abs/cm	*ASTM D7624		22.5		
	Silt	Abs/.1mm	*Visual	NONE	NONE		
	Debris	scalar 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		
		304141	Visual	20.2			
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5		
	Boron	ppm	ASTM D5185m	151	59		
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m	0.4	<1		
	Molybdenum	ppm	ASTM D5185m	250	41		
	Manganese	ppm	ASTM D5185m		7		
	Magnesium	ppm	ASTM D5185m	0	513		
	Calcium	ppm	ASTM D5185m	2046	1761		
	Phosphorus	ppm	ASTM D5185m	1043	779		
	Zinc	ppm	ASTM D5185m		906		
	Sulfur	ppm	ASTM D5185m	5012	2878		
	Oxidation	Abs/.1mm	*ASTM D7414		20.5		
	Base Number (BN)	mg KOH/g	ASTM D2896	12.5	10.4		
	Visc @ 100°C	cSt	ASTM D445	14.4	9 10.5		





Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2