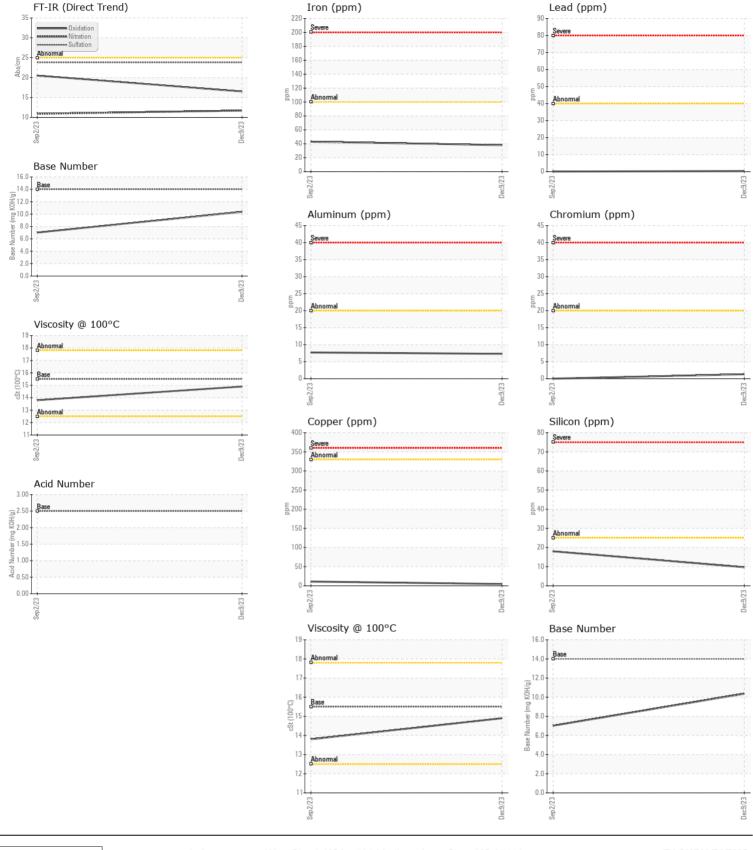
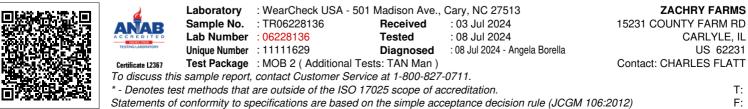


**OIL ANALYSIS REPORT** 

## Machine Id **PETERBILT 548 986 (S/N 608181)** Component **Diesel Engine** Fluid **TRC PRO-SPEC IV SYN BLEND SAE 15W40 (12 GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		TR06228136	TR06006543	
	Sample Date		Client Info		09 Dec 2023	02 Sep 2023	
	Machine Age	mls	Client Info		32000	16506	
	Oil Age	mls	Client Info		16000	16506	
	Filter Age	mls	Client Info		16000	16506	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	38	43	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		1	0	
	Nickel		ASTM D5185m		- <1	0	
	Titanium	ppm ppm	ASTM D5185m	24	<1	0	
	Silver		ASTM D5185m	. 2	<1 <1	0	
		ppm			7		
	Aluminum	ppm	ASTM D5185m			8	
	Lead	ppm	ASTM D5185m	>40	<1 5	0	
	Copper Tin	ppm	ASTM D5185m ASTM D5185m		ວ <1	11 0	
	Vanadium	ppm		C1<	<1 <1	0	
	White Metal	ppm	ASTM D5185m *Visual	NONE		NONE	
		scalar			NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	10	18	
	Potassium	ppm	ASTM D5185m	>20	14	17	
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.6	0.5	
	Nitration	Abs/cm	*ASTM D7624	>20	11.7	10.9	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	23.8	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium		ASTM D5185m		2	4	
FLUID CONDITION	Boron	ppm	ASTM D5185m	0	25	131	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		25	3	
	Molybdenum	ppm	ASTM D5185m		23	98	
	Manganese	ppm	ASTM D5185m	0	23	90 5	
	Magnesium	ppm	ASTM D5185m	9	2 136	574	
	Calcium	ppm	ASTM D5185m		4244	1842	
	Phosphorus	ppm	ASTM D5185m		4244 863	697	
	-	ppm					
	Zinc	ppm	ASTM D5185m		1111	878	
	Sulfur	ppm	ASTM D5185m		3891	2665	
	Oxidation	Abs/.1mm	*ASTM D7414		16.5	20.5	
	Base Number (BN)	0 0			10.36	7.02	
	Visc @ 100°C	cSt	ASTM D445	15.5	14.9	13.8	





Contact/Location: CHARLES FLATT - ZACCAR Page 2 of 2