

Machine Id **2126997** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

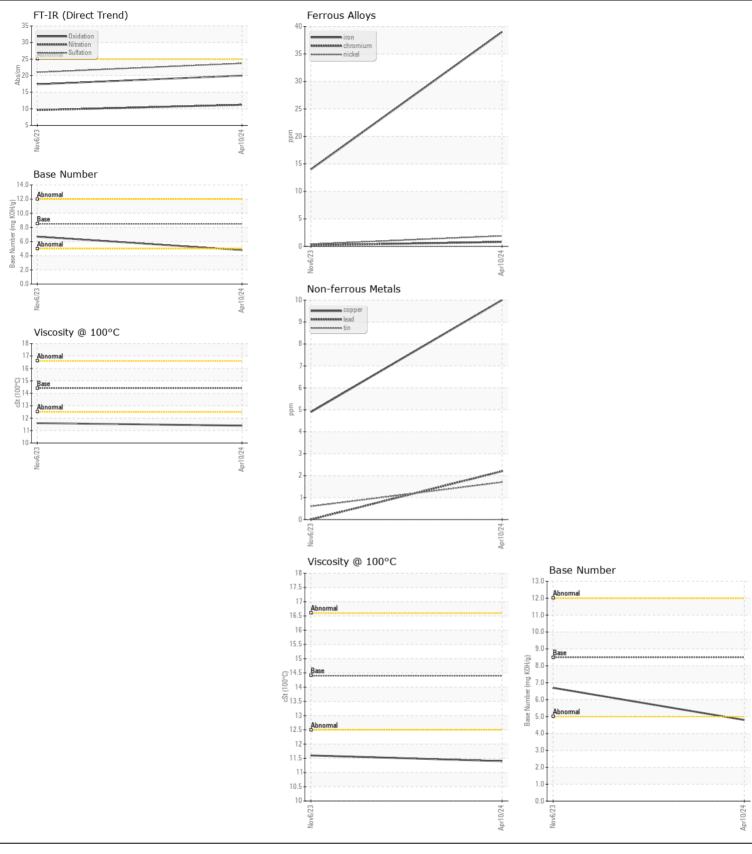
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		PCA0123486	PCA0068355	
	Sample Date		Client Info		10 Apr 2024	06 Nov 2023	
	Machine Age	mls	Client Info		30000	274153	
	Oil Age	mls	Client Info		30000	30000	
	Filter Age	mls	Client Info		30000	30000	
	Oil Changed		Client Info		Changed	N/A	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron		ASTM D5185m	. 100	39	14	
	Chromium	ppm	ASTM D5185m		<1		
All component wear rates are normal.	Nickel	ppm			2	<1	
		ppm	ASTM D5185m	>4		<1	
	Titanium	ppm	ASTM D5185m	0	<1	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		2	2	
	Lead	ppm	ASTM D5185m		2	0	
	Copper	ppm	ASTM D5185m		10	5	
	Tin	ppm	ASTM D5185m	>15	2	<1	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	10	8	
	Potassium	ppm	ASTM D5185m		5	2	
There is no indication of any contamination in the oil.	Fuel	lelerri	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	/ 0.1	NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.5	0.4	
	Nitration	Abs/cm	*ASTM D7624	>20	11.2	9.6	
	Sulfation	Abs/.1mm	*ASTM D7415		23.7	21.0	
	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	ppm	ASTM D5185m		<1	0	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m	250	<1	0	
	Barium	ppm	ASTM D5185m	10	0	0	
	Molybdenum	ppm	ASTM D5185m	100	68	61	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m	450	875	939	
	Calcium	ppm	ASTM D5185m	3000	1122	1072	
	Phosphorus	ppm	ASTM D5185m	1150	906	997	
	Zinc	ppm	ASTM D5185m	1350	1193	1241	
	Sulfur	ppm	ASTM D5185m	4250	3025	2760	
	Oxidation	Abs/.1mm	*ASTM D7414		20.0	17.4	
	Base Number (BN)		ASTM D2896		4.8	6.7	
		~C+		111	44.4	11.0	

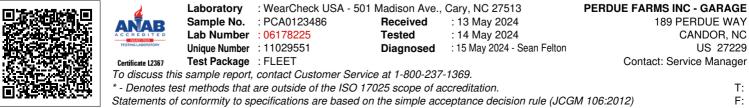
Visc @ 100°C cSt

ASTM D445 14.4

11.6

11.4





Contact/Location: Service Manager - PERCANNC Page 2 of 2