

Machine Id 901XC Componen **Diesel Engine** VALVOLINE 15W40 (--- GAL)

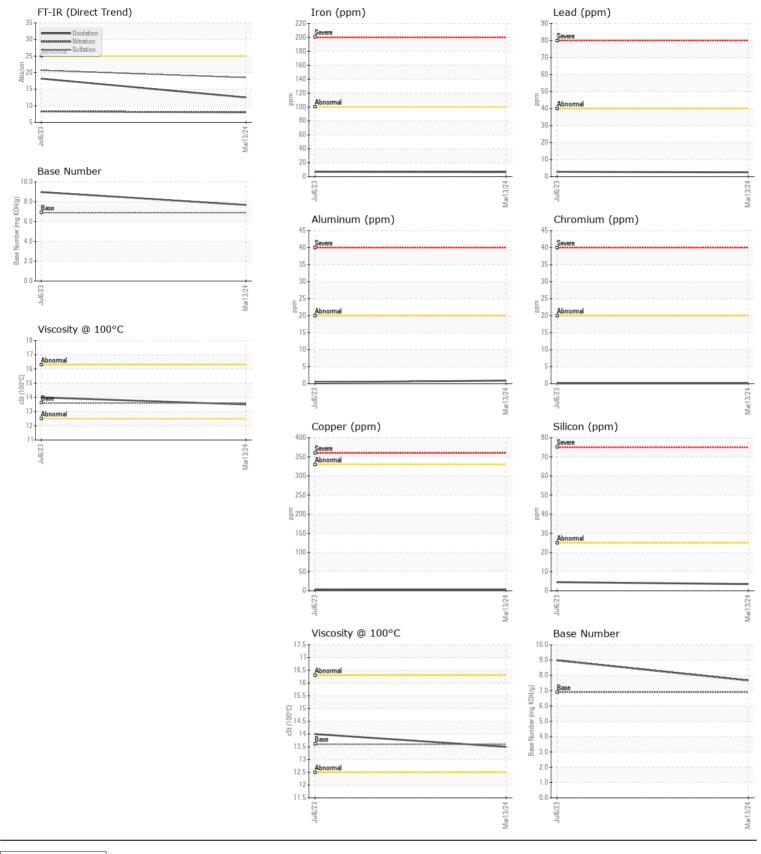
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		RW0005101	RW0004130	
	Sample Date		Client Info		13 Mar 2024	06 Jul 2023	
	Machine Age	hrs	Client Info		3000	1600	
	Oil Age	hrs	Client Info		500	540	
	Filter Age	hrs	Client Info		500	540	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	6	7	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Nickel	ppm	ASTM D5185m	>4	0	0	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver	ppm	ASTM D5185m	>3	0	<1	
	Aluminum	ppm	ASTM D5185m	>20	<1	<1	
	Lead	ppm	ASTM D5185m	>40	2	3	
	Copper	ppm	ASTM D5185m	>330	2	3	
	Tin	ppm	ASTM D5185m	>15	1	<1	
	Vanadium	ppm	ASTM D5185m		<1	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	4	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	2	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	8.0	8.3	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	20.7	
	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	2	
	Boron	ppm	ASTM D5185m	39	1	76	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m	1	0	0	
	Molybdenum	ppm	ASTM D5185m	49	9	61	
	Manganese	ppm	ASTM D5185m	1	0	<1	
	Magnesium	ppm	ASTM D5185m	616	39	414	
	Calcium	ppm	ASTM D5185m	1554	2517	2146	
	Phosphorus	ppm	ASTM D5185m	899	951	1092	
	Zinc	ppm	ASTM D5185m	1069	1128	1417	
	Sulfur	ppm	ASTM D5185m	2624	4430	4138	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.5	18.2	
	Base Number (BN)	mg KOH/g	ASTM D2896	6.9	7.67	8.98	
	V/ 0 10000	0.		10.0		110	

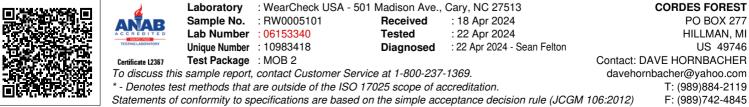
Visc @ 100°C cSt

ASTM D445 13.6

14.0

13.5





PO

Contact/Location: DAVE HORNBACHER - CORHIL Page 2 of 2