

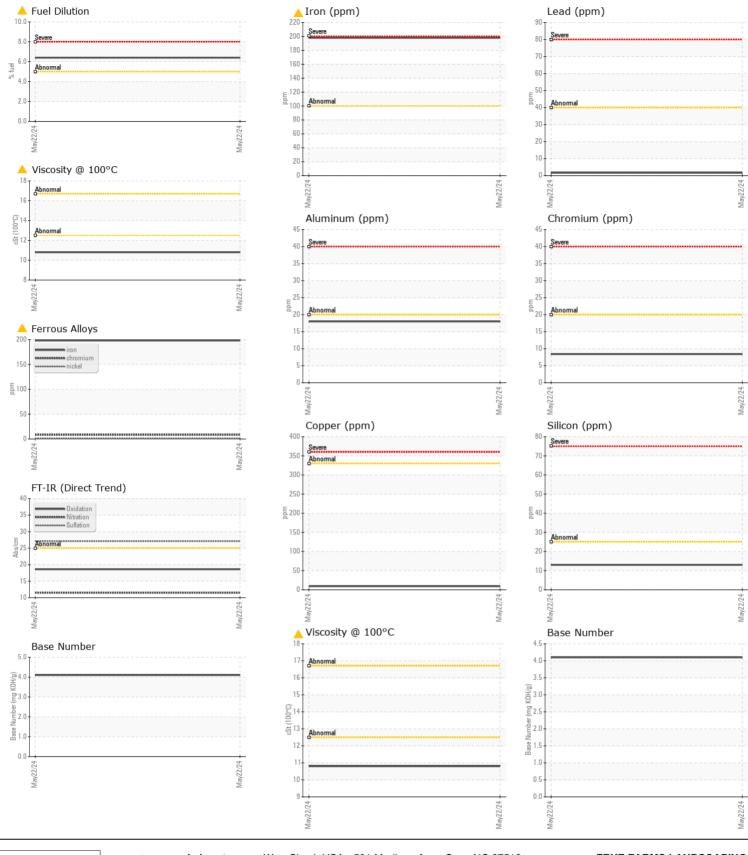
## WEAR ABNORMAL CONTAMINATION ABNORMAL FLUID CONDITION ABNORMAL

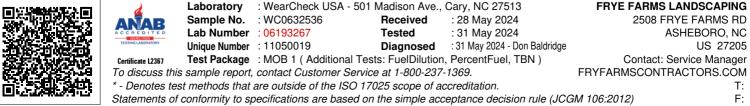
## Machine Id **15** Component **Diesel Engine** Fluid **AMSOIL (--- GAL)**

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0632536		
	Sample Date		Client Info		22 May 2024		
	Machine Age	mls	Client Info		39120		
	Oil Age	mls	Client Info		12239		
	Filter Age	mls	Client Info		12239		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185m		<b>4</b> 198		
Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.	Chromium	ppm	ASTM D5185m		8		
	INICKEI	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m	>20	18		
	Lead	ppm	ASTM D5185m		2		
	Copper	ppm	ASTM D5185m	>330	9		
	Tin	ppm	ASTM D5185m	>15	0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	0'''			05	40		
CONTAMINATION	Silicon	ppm	ASTM D5185m		13		
There is a moderate amount of fuel present in the oil.	Potassium	ppm	ASTM D5185m		2		
	Fuel	%	ASTM D3524		▲ 6.4		
	Water		WC Method	>0.2	NEG		
	Glycol	01	WC Method	0	NEG		
	Soot %	%	*ASTM D7844		0.7		
	Nitration	Abs/cm	*ASTM D7624	>20	11.5		
	Sulfation	Abs/.1mm	*ASTM D7415		27.1		
	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		15		
The BN result indicates that there is suitable alkalinity remaining in the oil.	n the Barium	ppm	ASTM D5185m		0		
	Molybdenum		ASTM D5185m		5		
	Manganese	ppm	ASTM D5185m		5 7		
	Magnesium	ppm	ASTM D5185m		47		
	Calcium	ppm	ASTM D5185m		2520		
		ppm	ASTM D5185m ASTM D5185m		2520 993		
	Phosphorus	ppm					
	Zinc	ppm	ASTM D5185m		1200		
	Sulfur	ppm	ASTM D5185m	. 05	4198		
	Oxidation	Abs/.1mm	*ASTM D7414	>20	18.6		
	Base Number (BN)	mg KOH/g	ASTM D2896		4.1		

Visc @ 100°C cSt

ASTM D445





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