

WEAR NORMAL CONTAMINATION **ABNORMAL** FLUID CONDITION NORMAL

Machine Id R202-L-01 **Diesel Engine** {not provided} (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

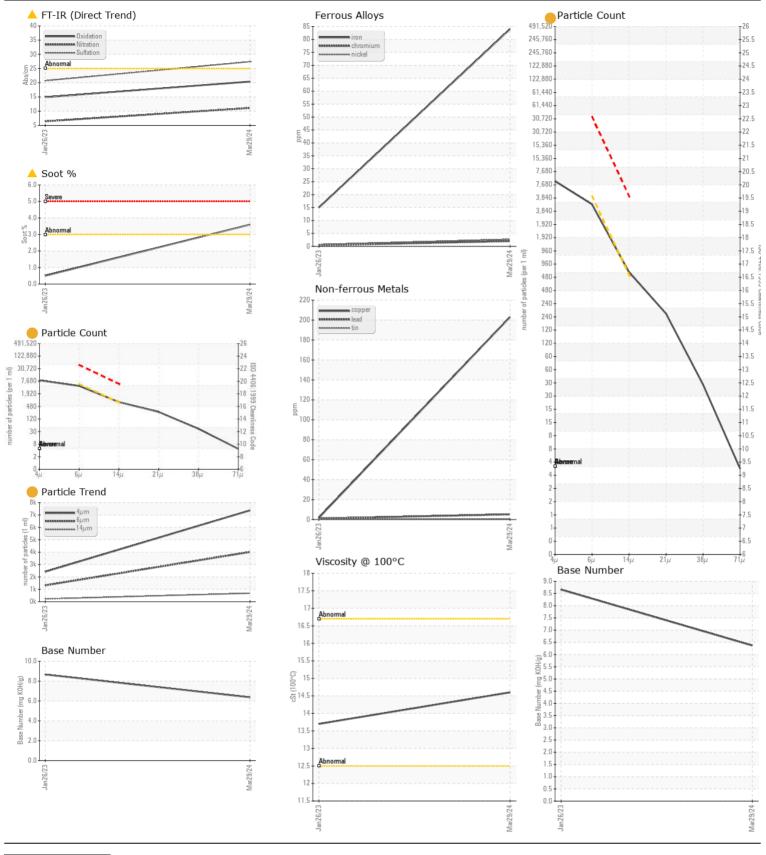
CONTAMINATION

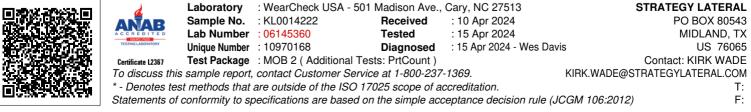
There is a light amount of silt (particulates < 14 microns in size) present in the oil. Light concentration of carbon/soot present in the oil.

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The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

OMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		KL0014222	KLM2340918	
commend that you drain the oil from the component if this has not	Sample Date		Client Info		29 Mar 2024	26 Jan 2023	
ly been done. We recommend you service the filters on this	Machine Age	hrs	Client Info		45371	44946	
onent. The fluid was not specified, however, a fluid match	Oil Age	hrs	Client Info		0	0	
tes that this fluid is SAE 40 Diesel Engine Oil. Please confirm the	Filter Age	hrs	Client Info		0	0	
e and grade, and specify the brand of the oil on your next sample.	Oil Changed		Client Info		N/A	N/A	
e specify the component make and model with your next sample.	Filter Changed		Client Info		N/A	N/A	
	Sample Status		5.0.11110		ABNORMAL	NORMAL	
AR	Iron	ppm	ASTM D5185m	>100	84	15	
	Chromium	ppm	ASTM D5185m	>20	2	<1	
nponent wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	3	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		2	<1	
	Lead	ppm		>40	5	1	
	Copper	ppm	ASTM D5185m		203	2	
	Tin	ppm	ASTM D5185m		<1	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
ITAMINATION	Silicon	ppm	ASTM D5185m	>25	6	4	
	Potassium	ppm	ASTM D5185m	>20	4	3	
is a light amount of silt (particulates < 14 microns in size)	Fuel		WC Method	>5	<1.0	<1.0	
nt in the oil. Light concentration of carbon/soot present in the oil.	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	A 3.6	0.5	
	Nitration	Abs/cm	*ASTM D7624		11.1	6.4	
	Sulfation		*ASTM D7415		27.4	20.7	
	Particles >4µm		ASTM D7647		7369	2418	
	Particles >6µm		ASTM D7647	>5000	4014	1317	
	Particles >14µm		ASTM D7647	>640	683	224	
	Particles >21µm		ASTM D7647		230	76	
	Particles >38µm		ASTM D7647		36	12	
	Particles >71µm		ASTM D7647		4	1	
	Oil Cleanliness		ISO 4406 (c)			18/15	
	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		*Visual	>0.2	NEG	NEG	
ID CONDITION	Sodium	ppm	ASTM D5185m		<1	2	
	Boron	ppm	ASTM D5185m		200	327	
N result indicates that there is suitable alkalinity remaining in the	Barium	ppm	ASTM D5185m		0	0	
e oil is no longer serviceable due to the presence of	Molybdenum	ppm	ASTM D5185m		77	67	
ninants.	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		388	308	
	Calcium	ppm	ASTM D5185m		1458	1582	
	Phosphorus	ppm	ASTM D5185m		1034	846	
	ritoophoruo				1121		
	Zinc	ppm	ASTM D5185m		1121	1072	
		ppm ppm					
	Zinc	ppm ppm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7414	>25	3060	3595 14.9	
	Zinc Sulfur	ppm Abs/.1mm	ASTM D5185m	>25		3595	





Contact/Location: KIRK WADE - STRMIDTX Page 2 of 2