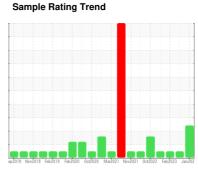


OIL ANALYSIS REPORT

GUAY SON [CONHER] Machine Id IBACO ARCENIO VICENTE MAIN

Component **Diesel Engine**

XTRA REV 15W40 (160 LTR)





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates present in the oil. Fuel content negligible.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

	m2018 Nov2018 Feb2019 Feb2020 Oct2020 Mm2021 Nov2021 Oct2022 Feb2023 Jan202						
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		KL0013484	KL0012847	KL0010226	
Sample Date		Client Info		20 Jan 2024	20 Sep 2023	17 Feb 2023	
Machine Age	hrs	Client Info		17357	16159	15690	
Oil Age	hrs	Client Info		151	2	1216	
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd	
Sample Status				ATTENTION	NORMAL	NORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG	NEG	NEG	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	11	3	17	
Chromium	ppm	ASTM D5185m	>20	<1	0	1	
Nickel	ppm	ASTM D5185m	>2	0	0	<1	
Titanium	ppm	ASTM D5185m	>2	0	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>25	2	3	<1	
Lead	ppm	ASTM D5185m	>40	0	0	1	
Copper	ppm	ASTM D5185m	>330	2	<1	3	
Tin	ppm	ASTM D5185m	>15	0	<1	<1	
Vanadium	ppm	ASTM D5185m		0	<1	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		59	104	86	
Barium	ppm	ASTM D5185m		1	0	0	
Molybdenum	ppm	ASTM D5185m		17	17	68	
Manganese	ppm	ASTM D5185m		0	<1	<1	
Magnesium	ppm	ASTM D5185m		82	92	267	
Calcium	ppm	ASTM D5185m		2508	2344	2412	
Phosphorus	ppm	ASTM D5185m		1145	1126	1075	
Zinc	ppm	ASTM D5185m		1335	1374	1298	
Sulfur	ppm	ASTM D5185m		3734	3788	4192	
CONTAMINANTS	S	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	9	9	7	
Sodium	ppm	ASTM D5185m		0	<1	17	
Potassium	ppm	ASTM D5185m	>20	6	5	36	
Fuel	%	ASTM D3524	>5	1.0	<1.0	<1.0	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.5	0.1	0.6	
Nitration	Abs/cm	*ASTM D7624	>20	6.6	4.1	8.7	
- 14 .1							

17.3

Sulfation

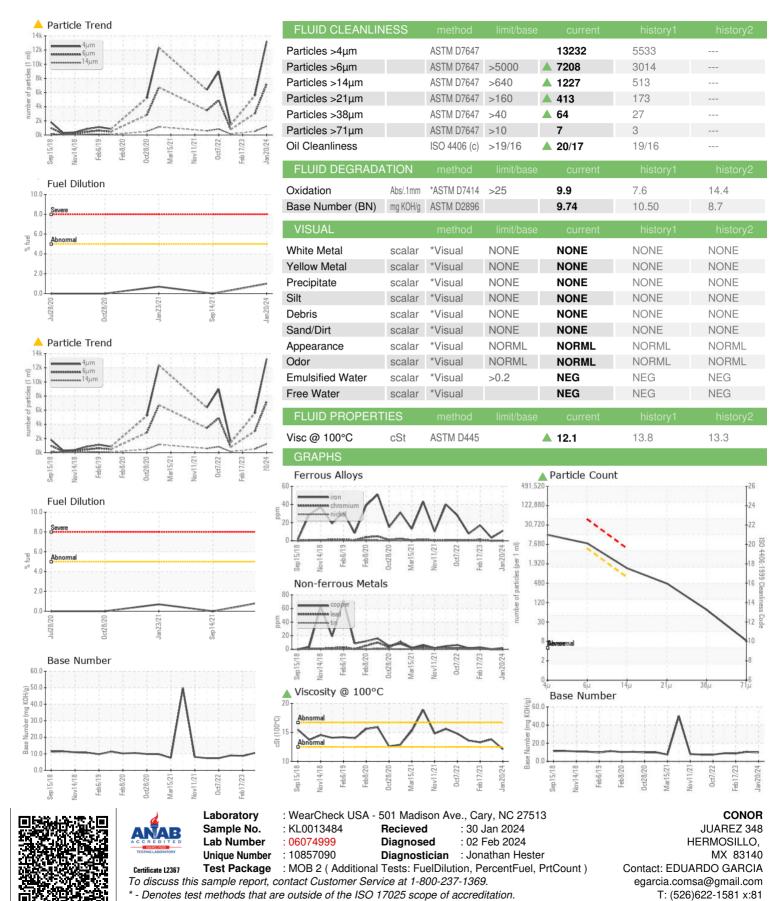
Abs/.1mm *ASTM D7415 >30

14.2

20.4



OIL ANALYSIS REPORT



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: