

OIL ANALYSIS REPORT

GUAY SON [CONHER] **IBACO BM ISMAR II AUX-1** Component

Diesel Engine XTRA REV 15W40 (8 LTR)

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

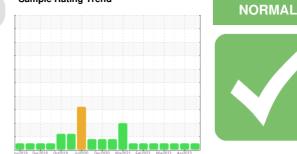
All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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.



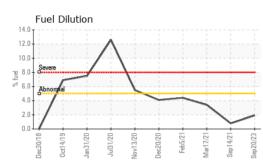
Sample Rating Trend

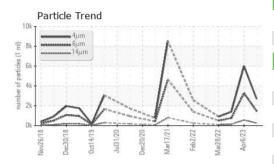


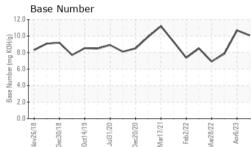
SAMPLE INFORM	1ATIO <u>N</u>	method	limit/base	current	history1	history2
Sample Number		Client Info		KL0012851	KL0012319	KL0010160
Sample Date		Client Info		20 Sep 2023	06 Apr 2023	07 Oct 2022
Machine Age	hrs	Client Info		17025	16953	0
Oil Age	hrs	Client Info		72	300	0
Oil Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	14	71	28
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	2
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin	ppm	ASTM D5185m	>15	<1	0	1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	138
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	2	102
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		4	12	397
Calcium	ppm	ASTM D5185m		2658	3110	1882
Phosphorus	ppm	ASTM D5185m		1106	1131	923
Zinc	ppm	ASTM D5185m		1356	1523	1115
Sulfur	ppm	ASTM D5185m		3679	4226	4187
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	9	9
Sodium	ppm	ASTM D5185m		<1	<1	0
Potassium	ppm	ASTM D5185m	>20	2	5	2
Fuel	%	ASTM D3524	>5	1.9	<1.0	<1.0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	5.8	10.5	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.8	19.1	23.5

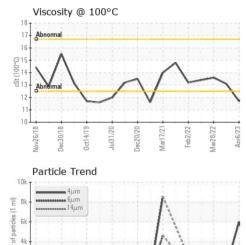


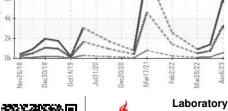
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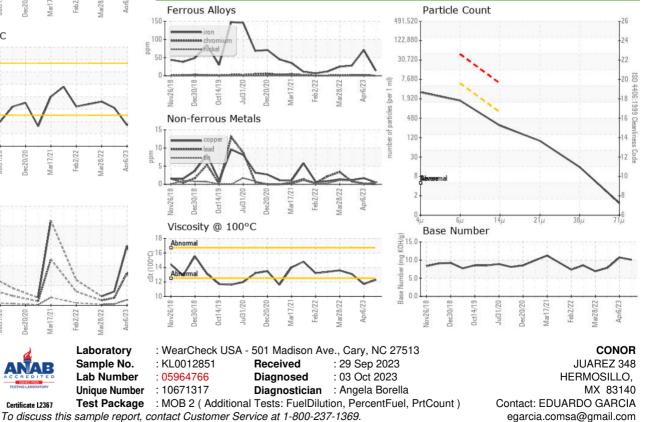






Certificate L2367

FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		2680	5985	1390
Particles >6µm		ASTM D7647	>5000	1460	3261	757
Particles >14µm		ASTM D7647	>640	248	555	129
Particles >21µm		ASTM D7647	>160	84	187	43
Particles >38µm		ASTM D7647	>40	13	29	7
Particles >71µm		ASTM D7647	>10	1	3	1
Oil Cleanliness		ISO 4406 (c)	>19/16	18/15	19/16	17/14
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.2	16.0	22.2
Base Number (BN)	mg KOH/g	ASTM D2896		10.08	10.69	7.85
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar					NONE
	Scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual *Visual	NONE NONE	NONE		
Debris Sand/Dirt					NONE	NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar scalar	*Visual *Visual	NONE	NONE	NONE NONE NONE	NONE NONE NONE
Sand/Dirt Appearance	scalar scalar scalar	*Visual *Visual *Visual	NONE NORML	NONE NONE NORML	NONE NONE NONE NORML	NONE NONE NONE NORML
Sand/Dirt Appearance Odor	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML	NONE NONE NONE NORML NORML	NONE NONE NONE NORML NORML
Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML NEG	NONE NONE NORE NORML NORML NEG	NONE NONE NORE NORML NORML NEG
Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NORML NORML >0.2	NONE NONE NORML NORML NEG NEG	NONE NONE NORML NORML NEG NEG	NONE NONE NORML NORML NEG NEG
Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPERT	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual method	NONE NORML NORML >0.2	NONE NONE NORML NORML NEG NEG	NONE NONE NONE NORML NORML NEG NEG history1	NONE NONE NONE NORML NORML NEG NEG history2



* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

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