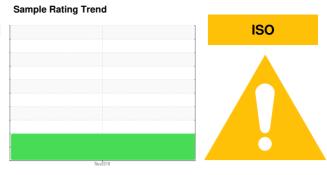


OIL ANALYSIS REPORT

Area
GUAY SON **IBACO CHUTITO XXVIII AUX-1**

Diesel Fuel

MAG1 15W40 C14 PLUS/SL (--- LTR)



DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

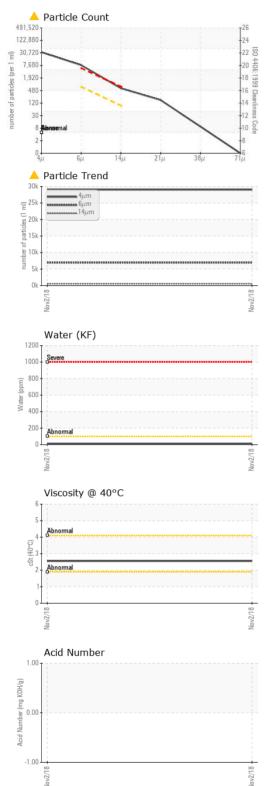
Contaminants

There is a high amount of particulates present in the fuel. Moderate concentration of visible dirt/debris present in the fuel. There is no Bacteria, Yeast and/or Fungus indicated in the sample. The water content is negligible.

Iron	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age Sample Status Sample Status	Sample Number		Client Info		KL04599963		
Mathematical Status Mathematical Status	Sample Date		Client Info		02 Nov 2018		
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >2 <1	Machine Age	days	Client Info		51		
Chromium ppm ASTM D5185m >2 <1 Chromium ppm ASTM D5185m >2 0 Chromium ppm ASTM D5185m >2 2 Chromium ppm ASTM D5185m >2 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5185m 0 Chromium ppm ASTM D5	Sample Status				ABNORMAL		
Description	WEAR METALS		method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>2	<1		
Description	Chromium	ppm	ASTM D5185m	>2	0		
ASTM D5185m Particles Pa	Nickel	ppm	ASTM D5185m	>2	0		
ASTM D5185m >2 0	Titanium	ppm	ASTM D5185m	>2	0		
Lead ppm ASTM D5185m >2 1 Copper ppm ASTM D5185m >2 0 Fin ppm ASTM D5185m >2 2 Antimony ppm ASTM D5185m >2 0 Aradium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Boron ppm ASTM D5185m 0	Silver	ppm	ASTM D5185m	>2	0		
Copper	Aluminum	ppm	ASTM D5185m	>2	0		
Antimony ppm ASTM D5185m >2 2 0 Antimony ppm ASTM D5185m >2 0 Antimony ppm ASTM D5185m >2 0 ADDITIVES method limit/base current history1 history3 ASTM D5185m O ADDITIVES method limit/base current history1 history4 ASTM D5185m O ASTM D5185m O Manganese ppm ASTM D5185m O Manganese ppm ASTM D5185m O Manganese ppm ASTM D5185m O Datcium ppm ASTM D5185m O Phosphorus ppm ASTM D5185m O Phosphorus ppm ASTM D5185m O Sulfur ppm ASTM D5185m O CONTAMINANTS method limit/base current history1 history4 Bodium ppm ASTM D5185m O Potassium ppm ASTM D6304 >0.0.05 0.001 Potassium ppm ASTM D6304 10 Potassium Ppm ASTM D6304 10 Potassium ASTM D7647 >80 6957 Particles >4μm ASTM D7647 >80 6957 Particles >6μm ASTM D7647 >80 6957 Particles >14μm ASTM D7647 >80 6957 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >38μm ASTM D7647 >4 8 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >4 8 Particles	_ead	ppm	ASTM D5185m	>2	1		
Antimony	Copper	ppm	ASTM D5185m	>2	-		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Barium ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 histor		ppm		. –			
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history	•	ppm	ASTM D5185m	>2			
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Description	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 51 Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >10 <1 Cotassium ppm ASTM D5185m >20 0 Vater % ASTM D5185m >20 0 Vater % ASTM D6304 >	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >10 <1 CONTAMINANTS method limit/base current history1 history3 Solicon ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m 0 0 Particles > 4µm ASTM D6304	Barium	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >10 <1	Molybdenum	ppm	ASTM D5185m				
Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >10 <1	Manganese	ppm	ASTM D5185m		0		
Phosphorus ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history Solicon ppm ASTM D5185m >10 <1 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Water % ASTM D5185m >20 0 Water % ASTM D6304 >0.001 Particles >4µm ASTM D6304 10 Particles >6µm ASTM D7647 >640 6957 Particles >21µm ASTM D7647 >80 545 Particles >71µm	Magnesium	ppm	ASTM D5185m				
CONTAMINANTS method limit/base current history history	Calcium	ppm			-		
Sulfur ppm ASTM D5185m 51 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >10 <1		ppm					
CONTAMINANTS method limit/base current history1 history2 Soliicon ppm ASTM D5185m >10 <1		ppm			-		
Silicon ppm ASTM D5185m >10 <1	Sulfur	ppm	ASTM D5185m		51		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 Vater % ASTM D6304 >0.05 0.001 ppm ASTM D6304 10 PLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 29030 Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0 Particles >71μm ASTM D7647 >3	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 Water % ASTM D6304 >0.05 0.001 opm Water ppm ASTM D6304 10 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 29030 Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >71μm ASTM D7647 >3 0	Silicon	ppm	ASTM D5185m	>10			
Water % ASTM D6304 >0.05 0.001 opm Water ppm ASTM D6304 10 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0	Sodium	ppm	ASTM D5185m		0		
Opm Water ppm ASTM D6304 10 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 29030 Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0			ASTM D5185m	>20			
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 29030 Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0		%		>0.05	0.00		
Particles >4μm ASTM D7647 29030 Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0	opm Water	ppm	ASTM D6304		10		
Particles >6μm ASTM D7647 >640 6957 Particles >14μm ASTM D7647 >80 545 Particles >21μm ASTM D7647 >20 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0	FLUID CLEANLI	NESS	method	limit/base	current	history1	history2
Particles >14µm	•						
Particles >21μm ASTM D7647 >20 ▲ 147 Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0							
Particles >38μm ASTM D7647 >4 8 Particles >71μm ASTM D7647 >3 0							
Particles >71μm ASTM D7647 >3 0				>20			
·	•						
Dil Cleanliness ISO 4406 (c) >16/13 ▲ 20/16	•						
	Oil Cleanliness		ISO 4406 (c)	>16/13	<u>^</u> 20/16		



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	▲ MODER		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		2.55		
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color				E DE		!
					no image	no image
Bottom					no image	no image





Certificate 12367

Laboratory

Sample No. Lab Number : 04599963 Unique Number : 8408954

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KL04599963

Received **Tested**

: 27 Nov 2018 Diagnosed

Test Package : MOB 2 (Additional Tests: KF, PrtCount)

: 05 Dec 2018 : 05 Dec 2018 - Doug Bogart To discuss this sample report, contact Customer Service at 1-800-237-1369.

JUAREZ 348 HERMOSILLO, MX 83140 Contact: EDUARDO GARCIA egarcia.comsa@gmail.com

T: (526)622-1581 x:81 F: x:

* - 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)

Contact/Location: EDUARDO GARCIA - CONHERKL

Pensky-Martens Flash Point (°C)

CONOR