

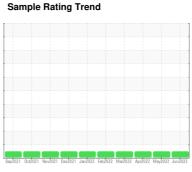
OIL ANALYSIS REPORT

GUAY SON/Yavaros [CONHER] CATERPILLAR Pacifico Ind Azteca MP Component

Sodium

Diesel Engine

CHEVRON DELO 400 MULTIGRADE 15W40 (160 LTR)





KL0009232

2919

2919

NORMAL

<1.0

NEG

NEG

72

1

2

<1

<1

5

22

25

3

<1

0

141

122

<1

754

1708

734

844

2198

9

20

0

N/A

08 Apr 2022

NORMAL

SAMPLE INFORMATION method KL0010181 Client Info KL0009240 Sample Number Sample Date Client Info 13 Jun 2022 01 May 2022 Machine Age hrs **Client Info** 3641 3269 Oil Age hrs Client Info 722 350 Oil Changed **Client Info** N/A N/A NORMAL Sample Status NORMAL CONTAMINATION Fuel WC Method >5 <1.0 <1.0 Water WC Method >0.2 NEG NEG Glycol WC Method NEG NEG WEAR METALS 8 >100 24 Iron ppm ASTM D5185m ASTM D5185m >20 <1 <1 Chromium ppm Nickel ASTM D5185m >2 0 ppm <1 Titanium ppm ASTM D5185m >2 0 0 Silver ASTM D5185m >2 <1 <1 ppm Aluminum ASTM D5185m >25 4 4 ppm 3 2 Lead ASTM D5185m >40 ppm ASTM D5185m >330 11 3 Copper ppm Tin ppm ASTM D5185m >15 <1 <1 Vanadium ppm ASTM D5185m 0 <1 Cadmium 0 ASTM D5185m <1 ppm Boron mag ASTM D5185m 173 320 Barium ASTM D5185m 0 0 ppm Molybdenum ASTM D5185m 87 115 ppm ASTM D5185m Manganese ppm <1 <1 Magnesium ASTM D5185m 469 727 ppm Calcium ppm ASTM D5185m 1461 1575 Phosphorus ASTM D5185m 1360 607 746 ppm 1480 849 Zinc ppm ASTM D5185m 758 Sulfur ASTM D5185m 2311 2331 ppm 8 4 Silicon ASTM D5185m >25 ppm

Potassium	ppm	ASTM D5185m	>20	2	<1	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.2	1
Nitration	Abs/cm	*ASTM D7624	>20	10.0	6.9	14.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.3	23.5	31.4
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.9	17.0	33.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	8.2	8.9	6.1

6

5

ASTM D5185m

ppm

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

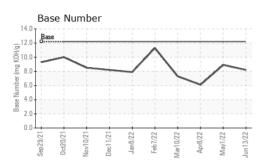
There is no indication of any contamination in the oil

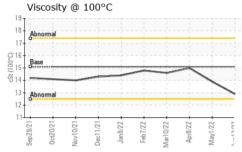
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

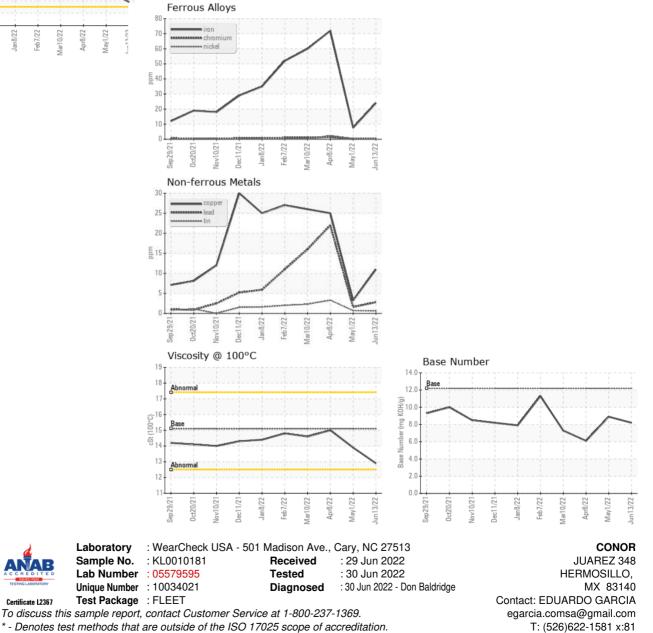


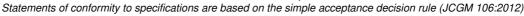
OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	12.9	13.9	15.0
GRAPHS						





Certificate L2367

F: x: