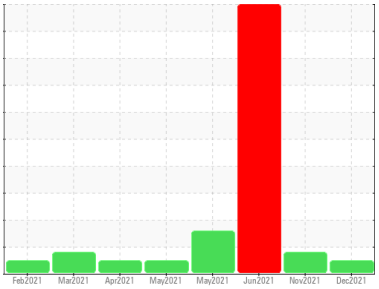
OIL ANALYSIS REPORT

Area
GUAY SON/Yavaros [CONHER]
Machine Id
CATERPILLAR Pacifico industrial PISA2 MP
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (100 LTR)

Sample Rating Trend



NORMAL

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KL0009022**	KL0007616	KL0007456
Sample Date		Client Info		**11 Dec 2021**	10 Nov 2021	26 Jun 2021
Machine Age	hrs	Client Info		**33300**	32980	32780
Oil Age	hrs	Client Info		**520**	200	332
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**NORMAL**	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	0.12

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**21**	30	36
Chromium	ppm	ASTM D5185m	>20	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	0
Silver	ppm	ASTM D5185m	>2	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**2**	4	2
Lead	ppm	ASTM D5185m	>40	**<1**	2	16
Copper	ppm	ASTM D5185m	>330	**44**	107	124
Tin	ppm	ASTM D5185m	>15	**1**	0	4
Antimony	ppm	ASTM D5185m		**0**	0	1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**208**	153	157
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**120**	111	122
Manganese	ppm	ASTM D5185m		**<1**	1	1
Magnesium	ppm	ASTM D5185m		**710**	767	▲ 272
Calcium	ppm	ASTM D5185m		**1610**	1722	▲ 663
Phosphorus	ppm	ASTM D5185m	760	**689**	674	▲ 325
Zinc	ppm	ASTM D5185m	800	**811**	813	▲ 421
Sulfur	ppm	ASTM D5185m	3000	**1976**	3053	▲ 1293

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**7**	5	5
Sodium	ppm	ASTM D5185m		**0**	2	▲ 496
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**1.3**	▲ 4.1	1.2
Nitration	Abs/cm	*ASTM D7624	>20	**8.2**	14.7	39.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**26.2**	27.9	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.2**	18.6	34.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	**8.3**	6.1	▲ 51.8

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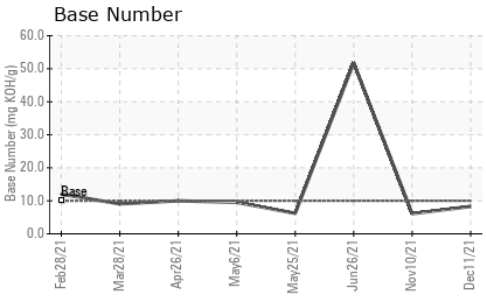
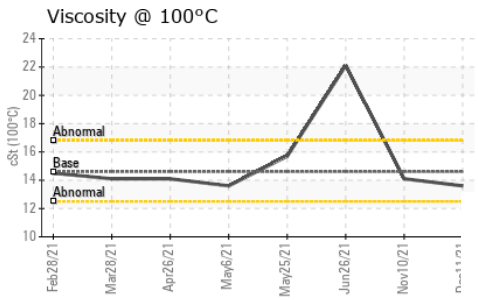
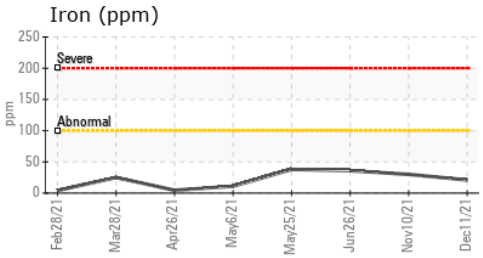


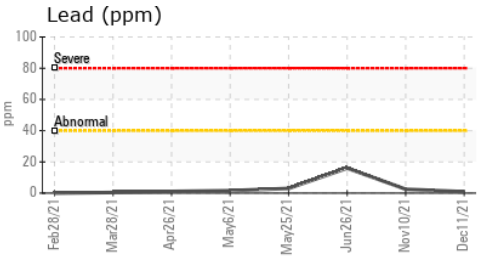


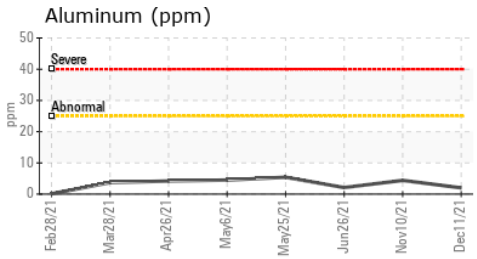
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

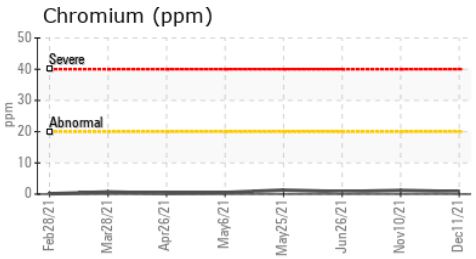
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.6	**13.6**	14.1	▲ 22.1

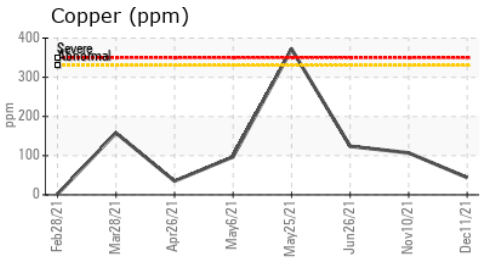
GRAPHS

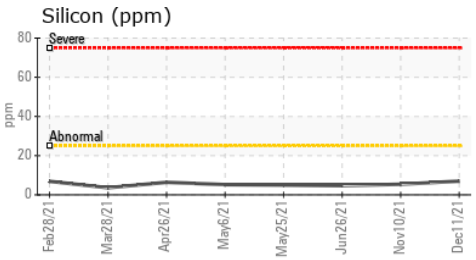


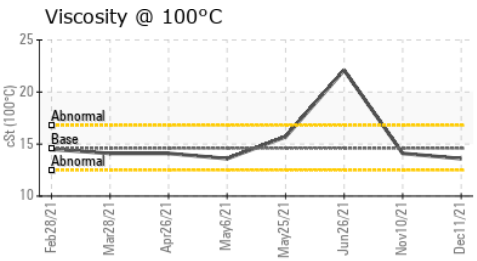


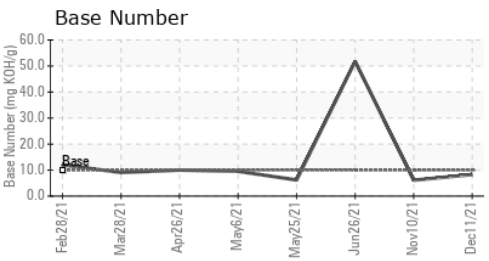












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0009022
Lab Number : 05424388
Unique Number : 9778579
Test Package : MOB1+

Received : 16 Dec 2021
Tested : 17 Dec 2021
Diagnosed : 17 Dec 2021 - Angela Borella

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - 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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