



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
GUAY SON [CONHER]
Machine Id
CATERPILLAR Nova del Mar - Chuchin Aux
Component
Diesel Engine
Fluid
PHILLIPS 66 15W40 (60 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013467	KL0012381	KL0012355
Sample Date		Client Info		26 Jan 2024	21 Jun 2023	23 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		350	436	0
Filter Age	hrs	Client Info		350	436	0
Oil Changed		Client Info		Changed	Not Changd	N/A
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	12	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	0
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	7	3	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

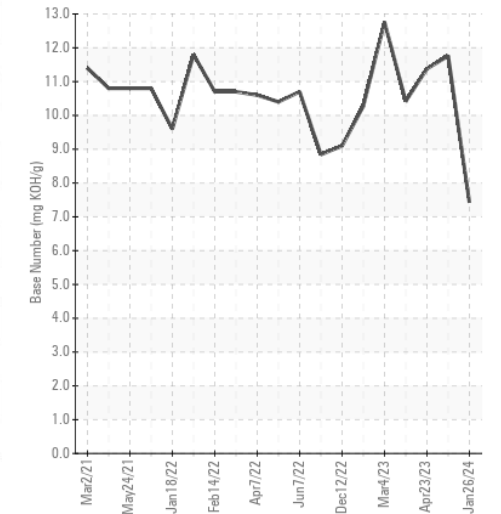
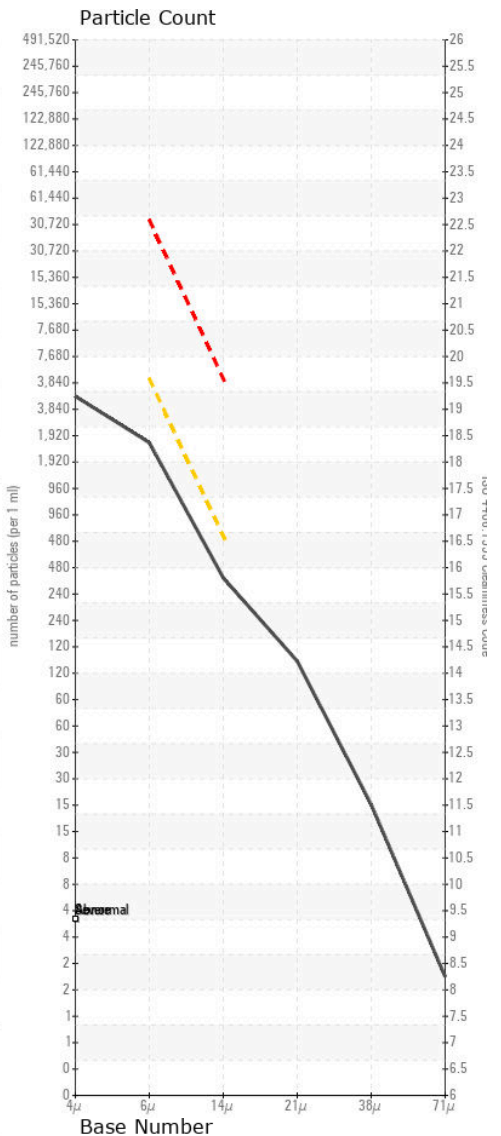
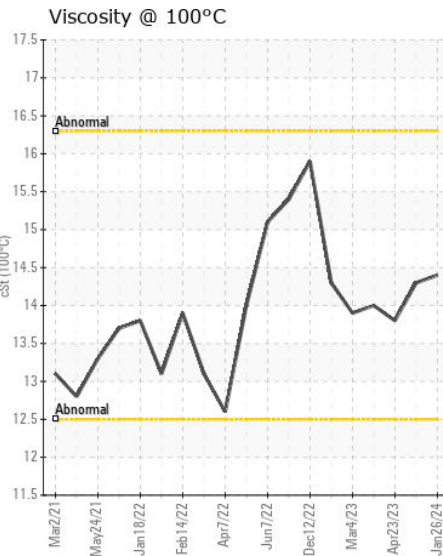
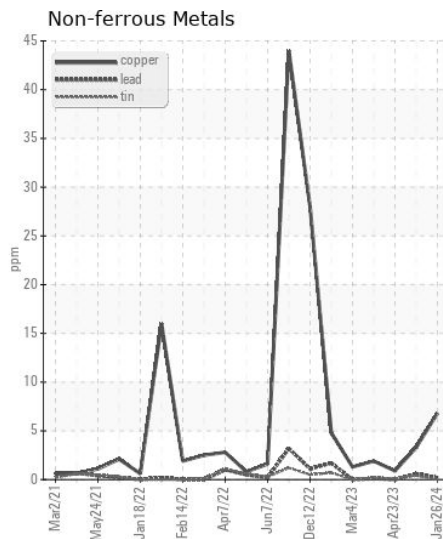
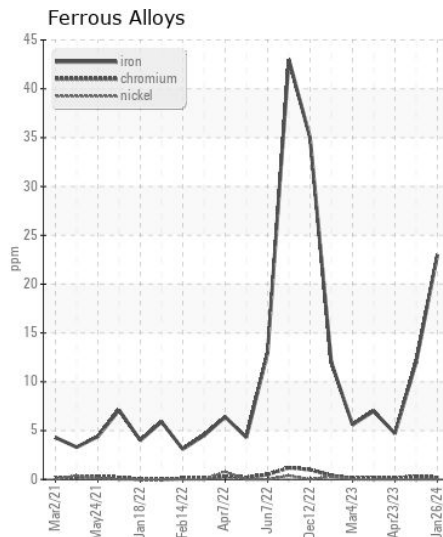
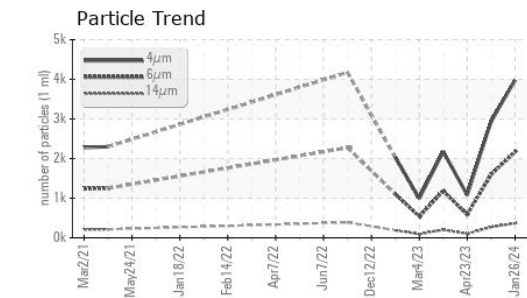
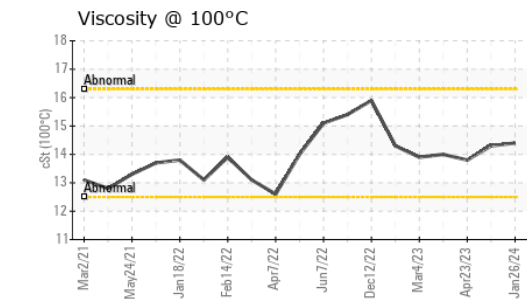
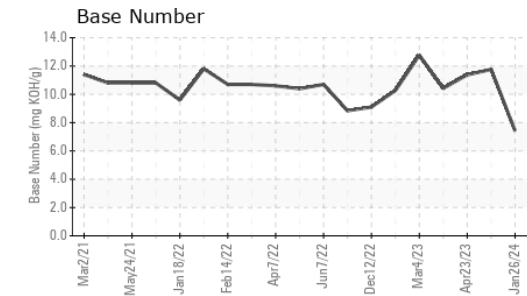
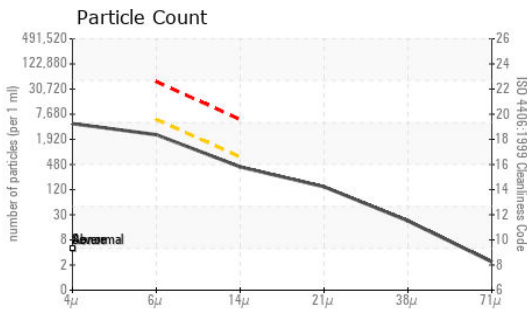
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	4	3
Potassium	ppm	ASTM D5185m	>20	8	3	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	11.2	9.8	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.3	21.5	16.9
Particles >4µm		ASTM D7647		3976	2932	1079
Particles >6µm		ASTM D7647	>5000	2166	1597	588
Particles >14µm		ASTM D7647	>640	369	272	100
Particles >21µm		ASTM D7647	>160	124	92	34
Particles >38µm		ASTM D7647	>40	19	14	5
Particles >71µm		ASTM D7647	>10	2	1	1
Oil Cleanliness		ISO 4406 (c)	>19/16	18/16	18/15	16/14
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

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.

Sodium	ppm	ASTM D5185m		2	4	5
Boron	ppm	ASTM D5185m		39	2	2
Barium	ppm	ASTM D5185m		<1	0	1
Molybdenum	ppm	ASTM D5185m		3	2	2
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		376	32	30
Calcium	ppm	ASTM D5185m		2847	4002	3712
Phosphorus	ppm	ASTM D5185m		1142	1040	1032
Zinc	ppm	ASTM D5185m		1337	1307	1226
Sulfur	ppm	ASTM D5185m		4641	5003	4471
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.8	15.1	10.8
Base Number (BN)	mg KOH/g	ASTM D2896		7.43	11.76	11.38
Visc @ 100°C	cSt	ASTM D445		14.4	14.3	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013467 **Received** : 30 Jan 2024
Lab Number : 06075005 **Diagnosed** : 02 Feb 2024
Unique Number : 10857096 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

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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