MOB II

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR 324E EC-882 (S/N PNW00822)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (6 QTS)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Customer requests id change to EC 822)

WEAR

All component wear rates are normal.

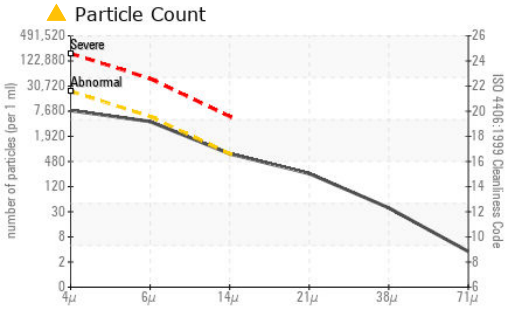
CONTAMINATION

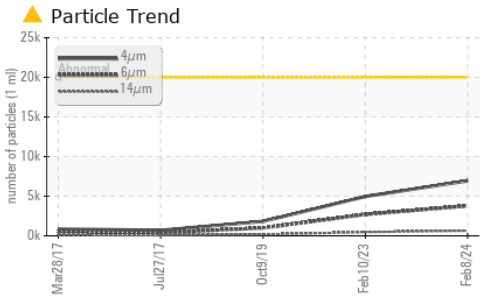
There is a moderate amount of particulates present in the oil.

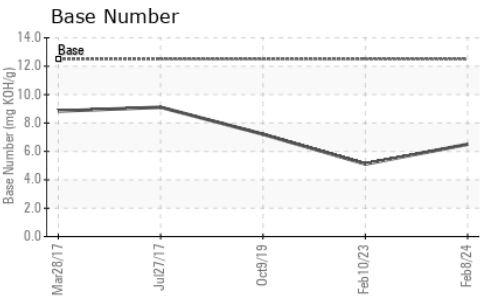
FLUID CONDITION

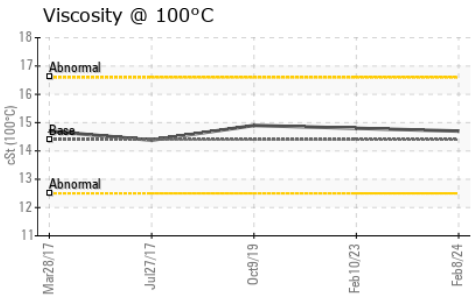
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

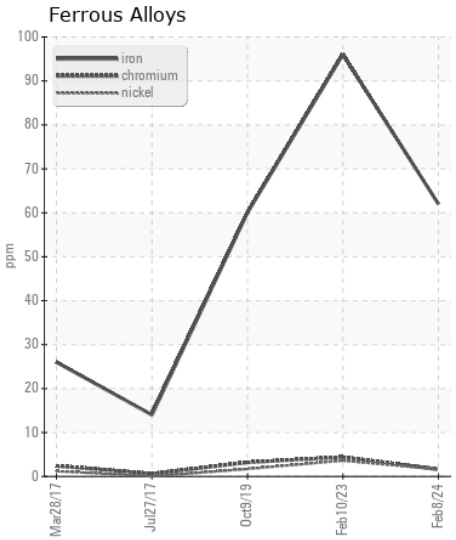
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0857791	WC0779702	WC0376540
Sample Date		Client Info		08 Feb 2024	10 Feb 2023	09 Oct 2019
Machine Age	hrs	Client Info		4024	3407	3132
Oil Age	hrs	Client Info		617	537	262
Filter Age	hrs	Client Info		617	275	262
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	62	96	60
Chromium	ppm	ASTM D5185m	>20	2	4	3
Nickel	ppm	ASTM D5185m	>2	2	4	2
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	24	▲ 85	▲ 52
Lead	ppm	ASTM D5185m	>40	0	<1	2
Copper	ppm	ASTM D5185m	>330	4	5	3
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	9	7
Potassium	ppm	ASTM D5185m	>20	7	3	16
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	0.6	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.8	10.3	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	23.1	21.4
Particles >4µm		ASTM D7647	>20000	6942	4968	1820
Particles >6µm		ASTM D7647	>5000	3782	2706	991
Particles >14µm		ASTM D7647	>640	▲ 644	461	168
Particles >21µm		ASTM D7647	>160	▲ 217	155	57
Particles >38µm		ASTM D7647	>40	33	24	8
Particles >71µm		ASTM D7647	>10	3	2	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 20/19/17	19/19/16	18/17/15
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
Sodium	ppm	ASTM D5185m		8	2	2
Boron	ppm	ASTM D5185m	151	44	72	118
Barium	ppm	ASTM D5185m	0.4	11	0	0
Molybdenum	ppm	ASTM D5185m	250	2	9	10
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	0	25	44	50
Calcium	ppm	ASTM D5185m	2046	2003	2240	2316
Phosphorus	ppm	ASTM D5185m	1043	887	990	1020
Zinc	ppm	ASTM D5185m	943	1103	1177	1162
Sulfur	ppm	ASTM D5185m	5012	4107	5014	3623
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	19.0	18
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	6.50	5.11	7.21
Visc @ 100°C	cSt	ASTM D445	14.4	14.7	14.8	14.9

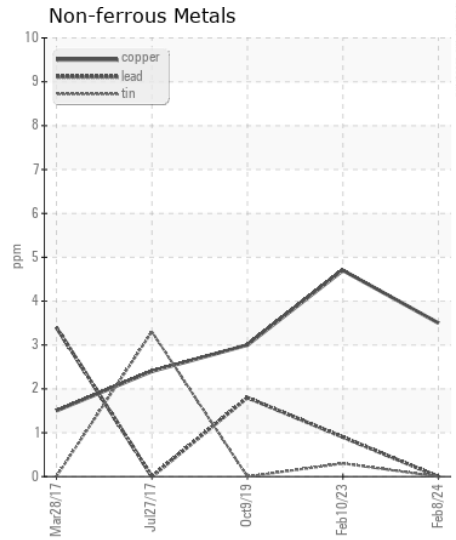


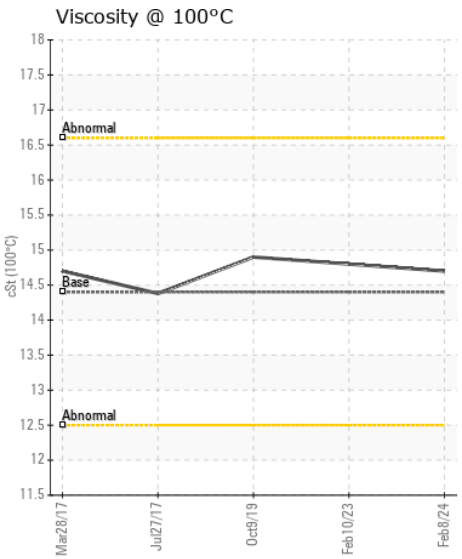


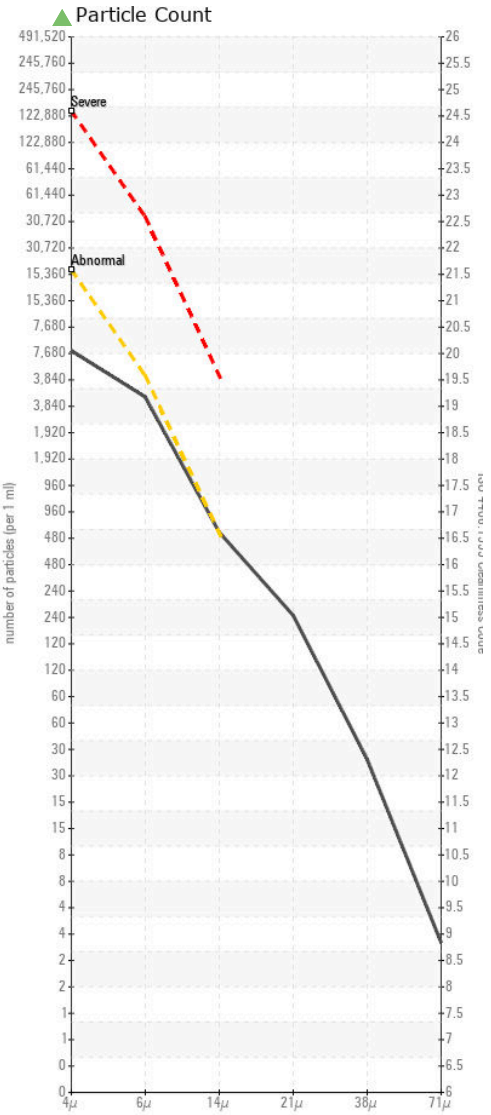


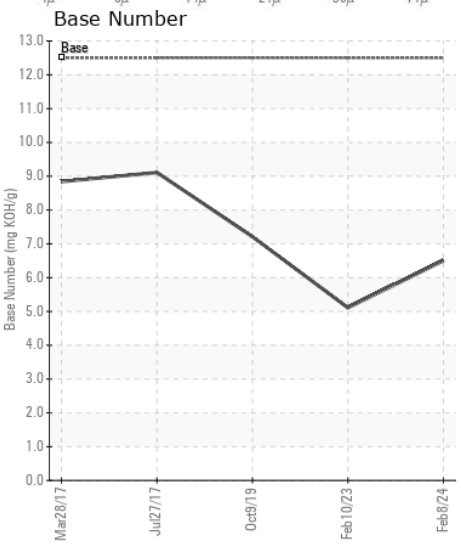












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0857791
Lab Number : 06089652
Unique Number : 10877097
Test Package : MOB 2 (Additional Tests: PrtCount)
Received : 14 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 2024 - Jonathan Hester

Certificate L2367

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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