MOBIL LUBE PLUS+ II

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
MIXERS
Machine Id
[MIXERS] M209
Component
Diesel Engine
Fluid
KENDALL 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

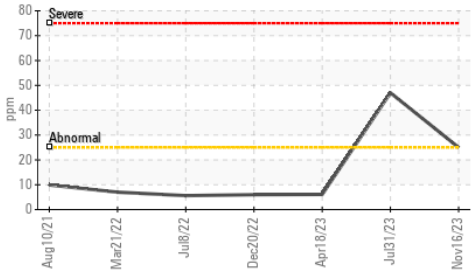
Elemental level of silicon (Si) above normal indicating ingress of seal material.

FLUID CONDITION

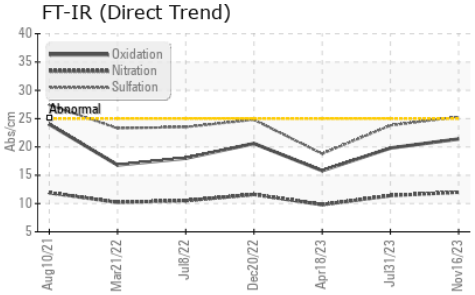
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0000671	LP0000103	WC0661723
Sample Date		Client Info		16 Nov 2023	31 Jul 2023	18 Apr 2023
Machine Age	hrs	Client Info		12397	11831	11208
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	13	11	11
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		1	2	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	0
Lead	ppm	ASTM D5185m	>40	14	15	3
Copper	ppm	ASTM D5185m	>330	2	2	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ 25	▲ 47	6
Potassium	ppm	ASTM D5185m	>20	0	2	<1
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	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	12.0	11.4	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.3	23.8	18.8
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		10	16	5
Boron	ppm	ASTM D5185m	6.3	34	30	58
Barium	ppm	ASTM D5185m	0.6	0	0	2
Molybdenum	ppm	ASTM D5185m	0.4	91	85	91
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	277	184	307	267
Calcium	ppm	ASTM D5185m	1514	2179	2066	2186
Phosphorus	ppm	ASTM D5185m	634	1053	1042	1101
Zinc	ppm	ASTM D5185m	743	1369	1335	1368
Sulfur	ppm	ASTM D5185m	2592	3621	4045	3992
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.4	19.8	15.8
Base Number (BN)	mg KOH/g	ASTM D2896		7.54	7.08	5.9
Visc @ 100°C	cSt	ASTM D445		13.7	13.6	13.8

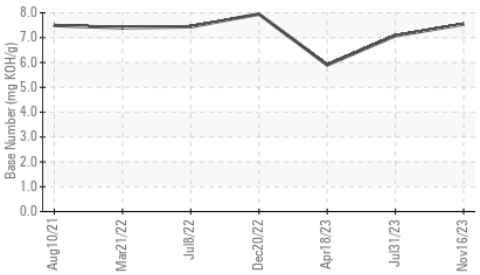
Silicon (ppm)



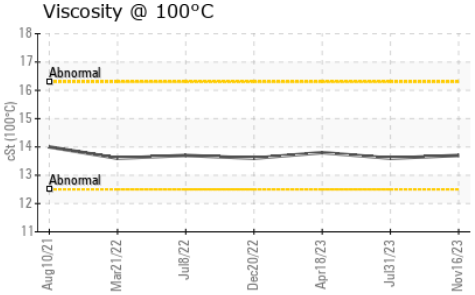
FT-IR (Direct Trend)



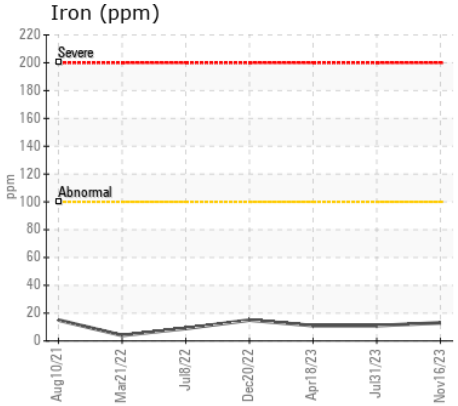
Base Number



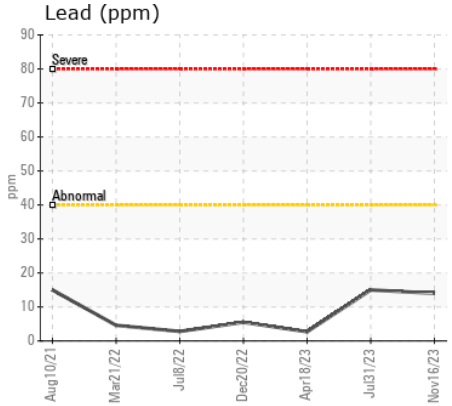
Viscosity @ 100°C



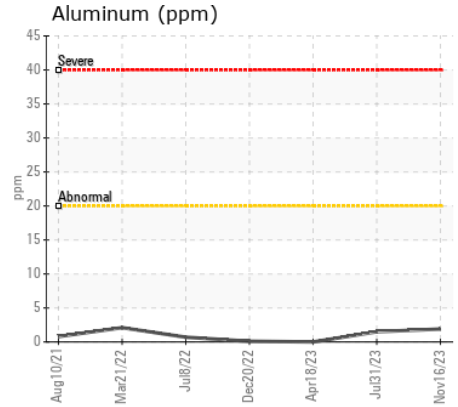
Iron (ppm)



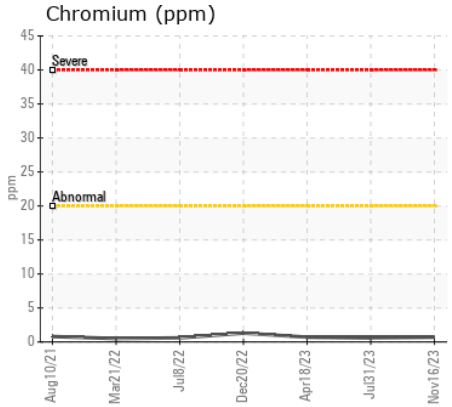
Lead (ppm)



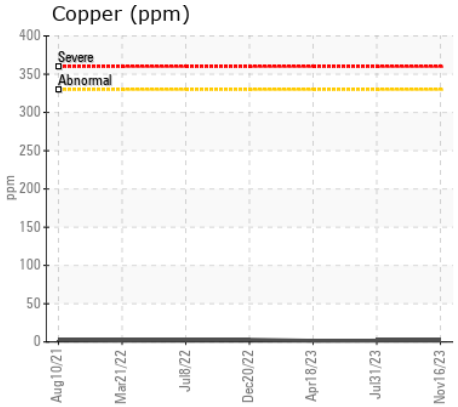
Aluminum (ppm)



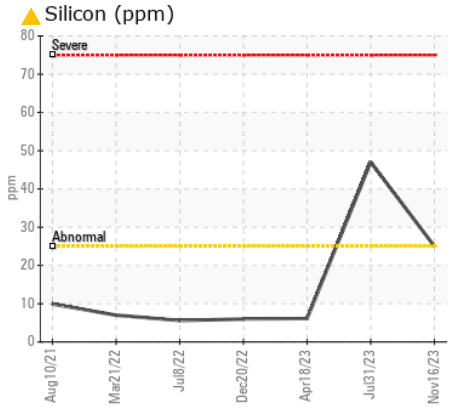
Chromium (ppm)



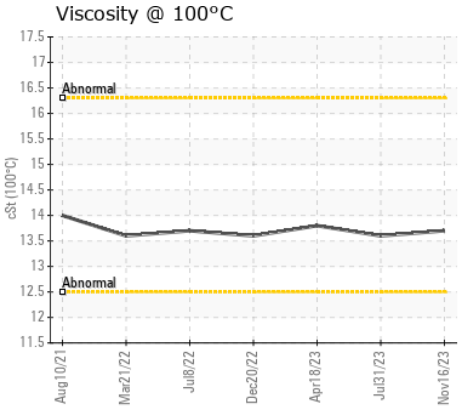
Copper (ppm)



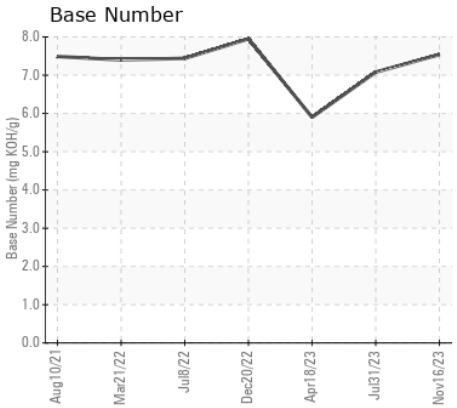
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0000671
Lab Number : 06015826
Unique Number : 10754970
Test Package : MOB 2

Received : 22 Nov 2023
Tested : 26 Nov 2023
Diagnosed : 27 Nov 2023 - Sean Felton

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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