



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	MARGINAL

Area
MIXERS
Machine Id
[MIXERS] M215
Component
Diesel Engine
Fluid
NOT GIVEN (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Kendall 15W40 oil)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0000110	WC0721406	PCA0078071
Sample Date		Client Info		15 Aug 2023	13 Feb 2023	29 Sep 2022
Machine Age	hrs	Client Info		6396	5737	5242
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	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	25	17
Chromium	ppm	ASTM D5185m	>20	<1	1	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		1	2	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	0	<1
Lead	ppm	ASTM D5185m	>40	1	9	8
Copper	ppm	ASTM D5185m	>330	14	▲ 531	▲ 645
Tin	ppm	ASTM D5185m	>15	1	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

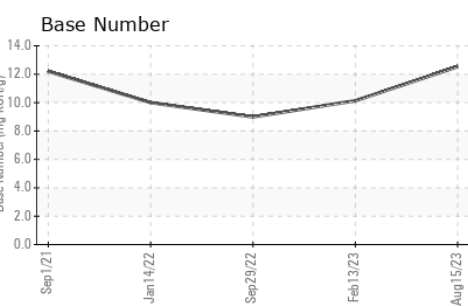
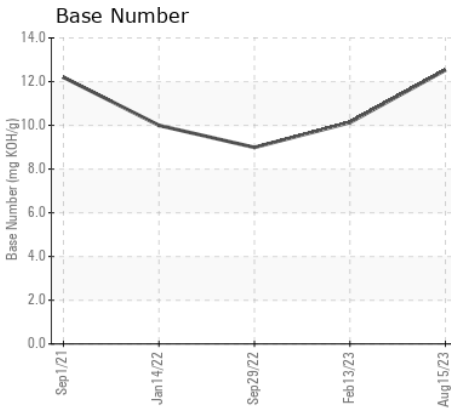
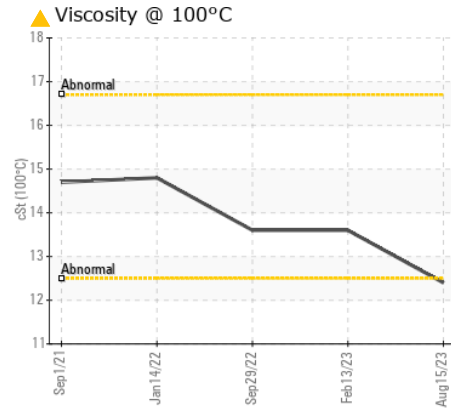
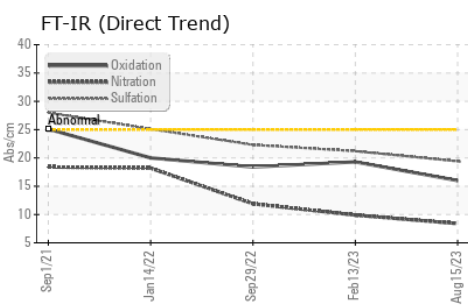
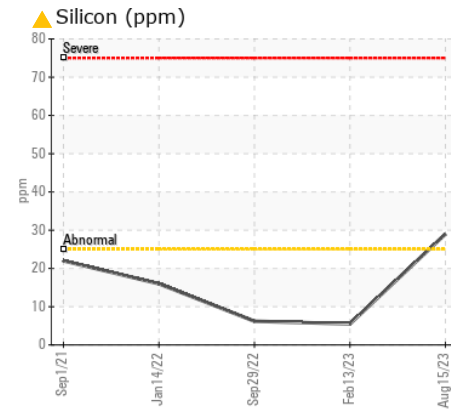
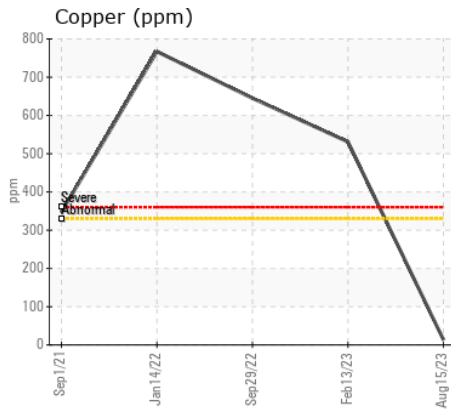
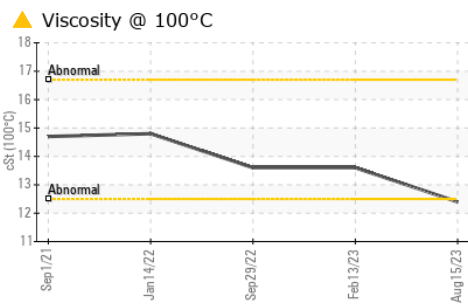
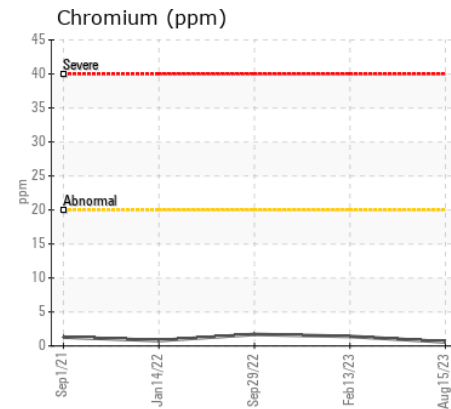
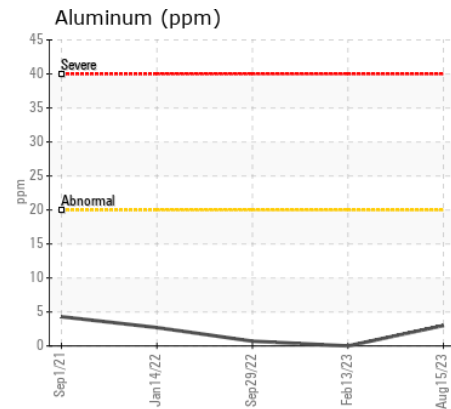
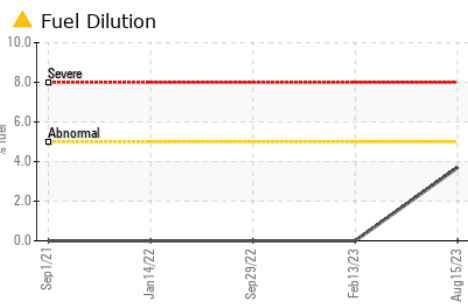
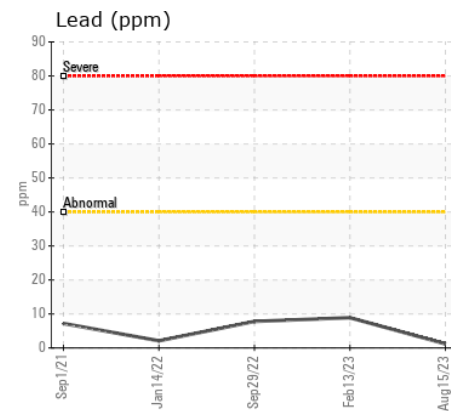
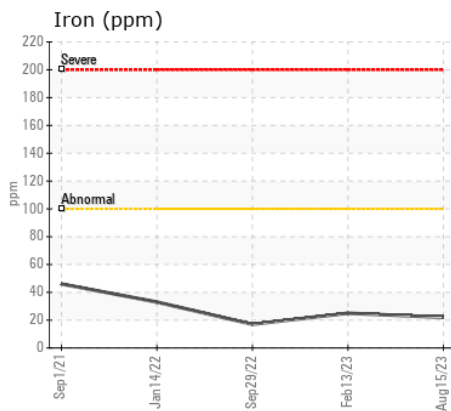
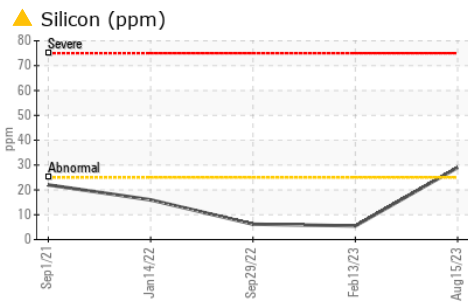
Elemental level of silicon (Si) above normal indicating ingress of seal material. Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	▲ 29	6	6
Potassium	ppm	ASTM D5185m	>20	12	▲ 69	▲ 445
Fuel	%	ASTM D3524	>5	▲ 3.7	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	▲ 0.10
Soot %	%	*ASTM D7844	>3	0.1	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.4	9.9	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	21.2	22.3
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		52	▲ 83	▲ 569
Boron	ppm	ASTM D5185m		43	16	8
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		86	68	89
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		196	879	791
Calcium	ppm	ASTM D5185m		2002	1407	1078
Phosphorus	ppm	ASTM D5185m		1027	1027	952
Zinc	ppm	ASTM D5185m		1214	1344	1077
Sulfur	ppm	ASTM D5185m		3936	3090	3166
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	19.3	18.4
Base Number (BN)	mg KOH/g	ASTM D2896		12.53	10.13	8.99
Visc @ 100°C	cSt	ASTM D445		▲ 12.4	13.6	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0000110 **Received** : 18 Aug 2023
Lab Number : 05928889 **Tested** : 22 Aug 2023
Unique Number : 10608836 **Diagnosed** : 22 Aug 2023 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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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