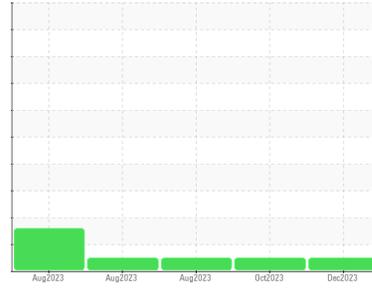




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
416
 Component
Diesel Engine
 Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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			KL0013040	KL0012728	KL0012751
Sample Date	Client Info			04 Dec 2023	03 Oct 2023	31 Aug 2023
Machine Age	mls	Client Info		613375	602980	596139
Oil Age	mls	Client Info		21195	10800	0
Oil Changed	Client Info			N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

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	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	5	<1	4
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	3
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

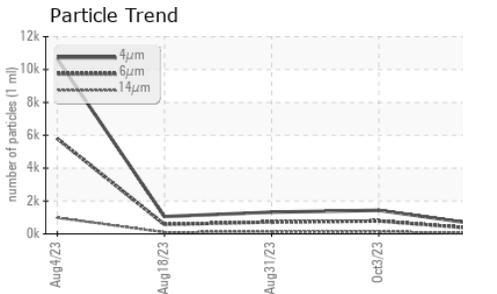
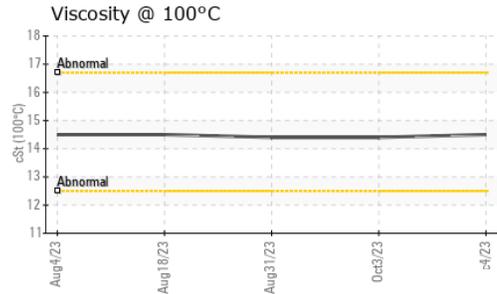
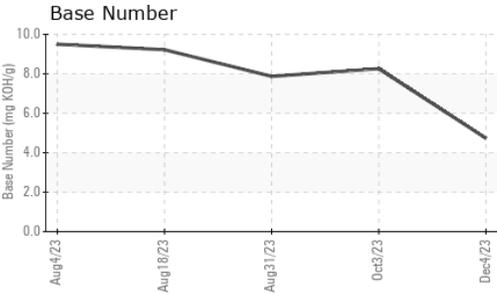
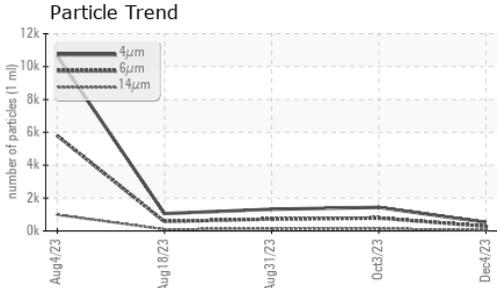
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		228	323	424
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		77	79	78
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		377	358	344
Calcium	ppm	ASTM D5185m		1395	1343	1336
Phosphorus	ppm	ASTM D5185m		1014	984	975
Zinc	ppm	ASTM D5185m		1295	1220	1158
Sulfur	ppm	ASTM D5185m		3009	2973	3258

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	4
Sodium	ppm	ASTM D5185m		2	0	1
Potassium	ppm	ASTM D5185m	>20	2	2	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.2	5.8
Sulfation	Abs./1mm	*ASTM D7415	>30	24.2	21.8	20.2



OIL ANALYSIS REPORT



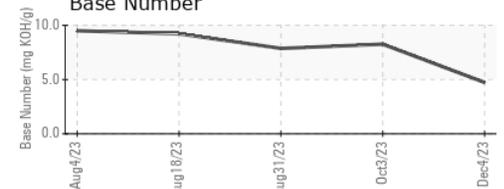
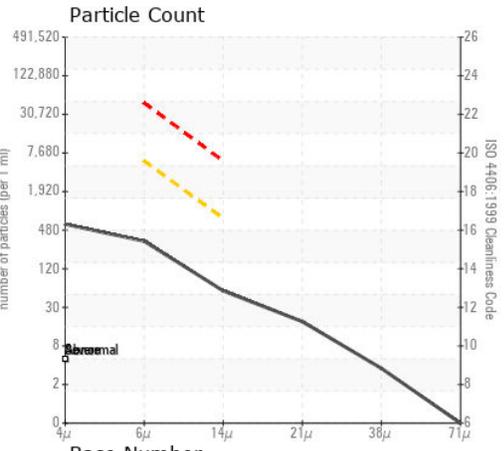
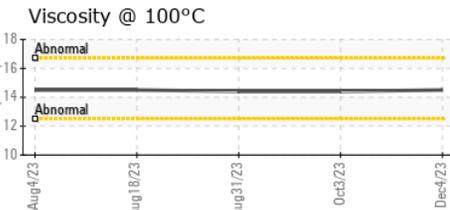
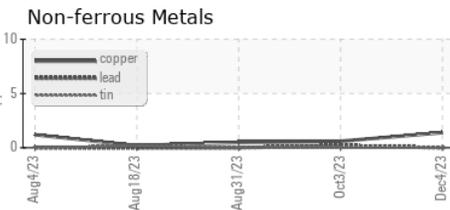
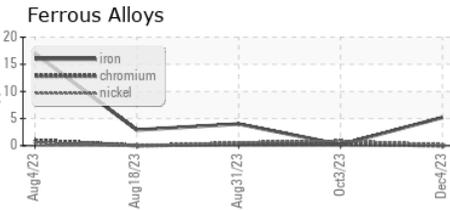
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		522	1435	1322
Particles >6µm	ASTM D7647	>5000	284	782	720
Particles >14µm	ASTM D7647	>640	48	133	123
Particles >21µm	ASTM D7647	>160	16	45	41
Particles >38µm	ASTM D7647	>40	3	7	6
Particles >71µm	ASTM D7647	>10	0	1	1
Oil Cleanliness	ISO 4406 (c)	>19/16	15/13	17/14	17/14

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	21.1	16.6	14.4
Base Number (BN)	mg KOH/g ASTM D2896		4.73	8.26	7.87

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		14.5	14.4	14.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013040
Lab Number : 06027956
Unique Number : 10777747
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 07 Dec 2023
Diagnosed : 08 Dec 2023
Diagnostician : Wes Davis

FEVID TRANSPORT
 10800 W CR 72
 MIDLAND, TX
 US 79707
 Contact: Service Manager

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)

T:
F: