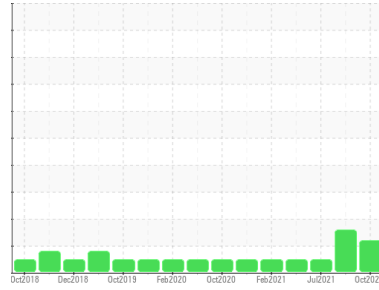




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
GUAY SON [CONHER]
 Machine Id
BM NAINARI AUX-1 IBACO BM NAINARI AUX-1
 Component
Diesel Engine
 Fluid
Xtra rev 15W 40 (8 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		KL0010131	KL0009158	KL0007471
Sample Date	Client Info		03 Oct 2022	25 Mar 2022	20 Jul 2021
Machine Age	hrs	Client Info	19263	17991	17741
Oil Age	hrs	Client Info	250	250	25
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
Sample Status			ATTENTION	ATTENTION	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	13	43	10
Chromium	ppm	ASTM D5185m >20	<1	10	<1
Nickel	ppm	ASTM D5185m >4	<1	0	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	2	<1
Aluminum	ppm	ASTM D5185m >20	3	6	0
Lead	ppm	ASTM D5185m >40	3	1	<1
Copper	ppm	ASTM D5185m >330	7	<1	2
Tin	ppm	ASTM D5185m >15	1	1	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	20	327	2
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	18	104	5
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	77	547	52
Calcium	ppm	ASTM D5185m	2897	1542	3033
Phosphorus	ppm	ASTM D5185m	1168	878	979
Zinc	ppm	ASTM D5185m	1369	989	1123
Sulfur	ppm	ASTM D5185m	4542	2770	3403

CONTAMINANTS

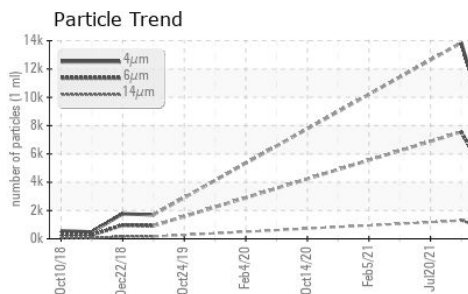
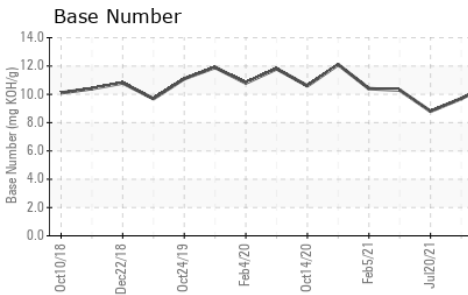
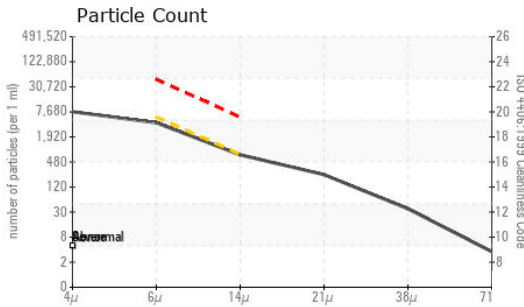
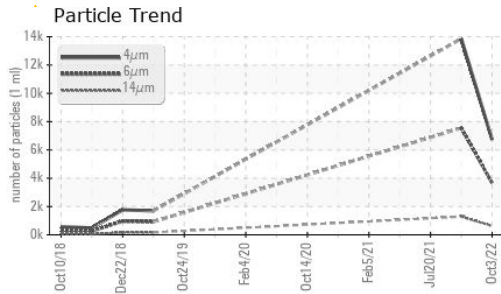
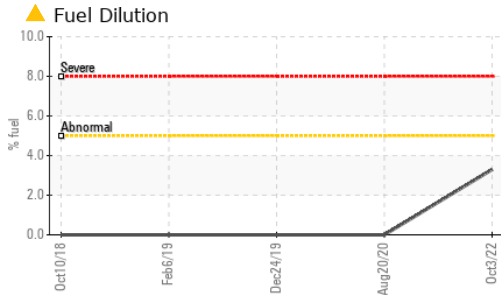
	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	23	11	19
Sodium	ppm	ASTM D5185m	2	12	4
Potassium	ppm	ASTM D5185m >20	2	<1	<1
Fuel	%	ASTM D3524 >5	▲ 3.3	<1.0	<1.0

INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	0.1	0.5	0.2
Nitration	Abs/cm	*ASTM D7624 >20	8.8	8.3	6.1
Sulfation	Abs/1mm	*ASTM D7415 >30	18.4	22.7	15.3



OIL ANALYSIS REPORT



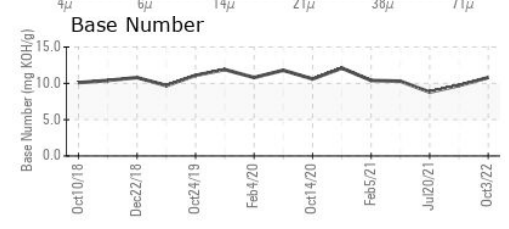
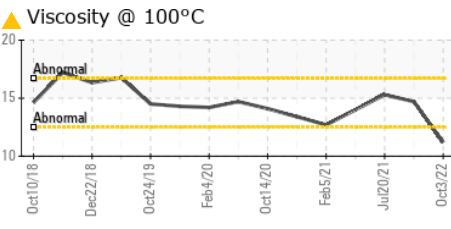
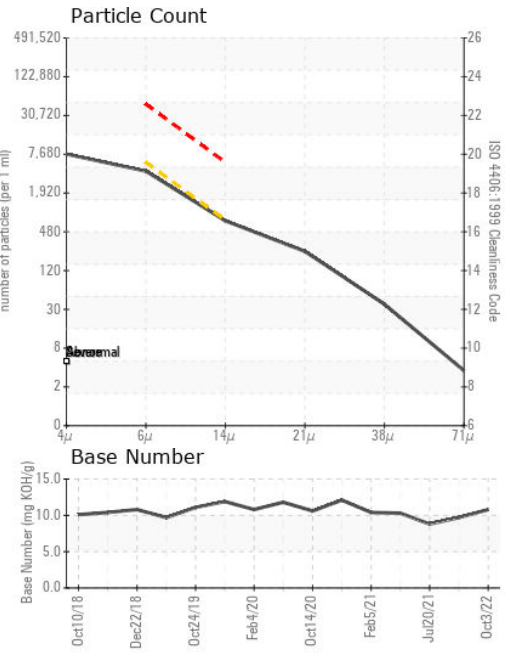
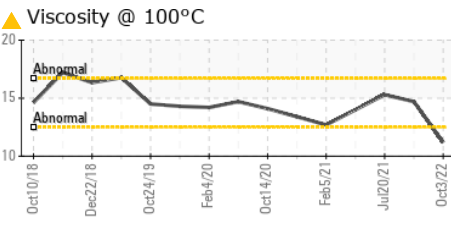
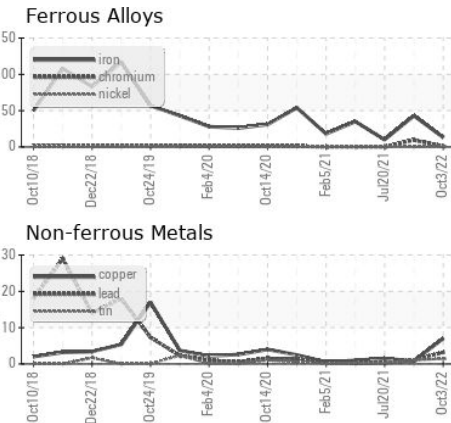
FLUID CLEANLINESS	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		6727	13859	---
Particles >6µm	ASTM D7647	>5000	3665	▲ 7550	---
Particles >14µm	ASTM D7647	>640	624	▲ 1285	---
Particles >21µm	ASTM D7647	>160	210	▲ 433	---
Particles >38µm	ASTM D7647	>40	32	▲ 67	---
Particles >71µm	ASTM D7647	>10	3	7	---
Oil Cleanliness	ISO 4406 (c)	>19/16	19/16	▲ 20/17	---

FLUID DEGRADATION	method	limit/base	current	history 1	history 2	
Oxidation	Abs./1mm	*ASTM D7414	>25	11.1	17.0	8.7
Base Number (BN)	mg KOH/g	ASTM D2896		10.8	9.70	8.8

VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	▲ 11.2	14.7	15.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0010131 **Received** : 10 Oct 2022
Lab Number : 05662425 **Diagnosed** : 12 Oct 2022
Unique Number : 10166994 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel, PrtCount)

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HERMOSILLO,
MX 83140
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T: (526)622-1581 x:81
F: x:

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)