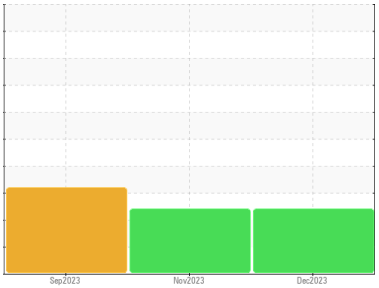
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Sample Rating Trend



DEGRADATION

Machine Id
UNIT 3
Component
Biogas Engine
Fluid
MOBIL PEGASUS 805 (--- GAL)

DIAGNOSIS

▲ Recommendation

The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

▲ Fluid Condition

The AN level is at the top-end of the recommended limit. The BN level is low.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0118696**	PCA0118695	PCA0073700
Sample Date		Client Info		**27 Dec 2023**	29 Nov 2023	06 Sep 2023
Machine Age	hrs	Client Info		**0**	0	50441
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>45	**7**	7	12
Chromium	ppm	ASTM D5185m	>2	**0**	0	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>5	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**1**	1	1
Lead	ppm	ASTM D5185m	>5	**<1**	<1	▲ 15
Copper	ppm	ASTM D5185m	>14	**2**	2	3
Tin	ppm	ASTM D5185m	>13	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	80	**0**	2	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**2**	14	9
Calcium	ppm	ASTM D5185m	1020	**1536**	1563	1598
Phosphorus	ppm	ASTM D5185m	220	**308**	316	321
Zinc	ppm	ASTM D5185m	230	**364**	376	383
Sulfur	ppm	ASTM D5185m	1000	**3691**	4005	2458

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	**<1**	<1	2
Sodium	ppm	ASTM D5185m		**2**	2	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Fuel	%	ASTM D3524	>4.0	**0.1**	0.2	0.5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**8.1**	8.1	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**22.2**	22.2	24.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.8**	18.9	30.3
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	▲ **2.90**	▲ 2.85	▲ 3.22
Base Number (BN)	mg KOH/g	ASTM D2896	6.4	▲ **2.52**	▲ 2.55	▲ 2.02

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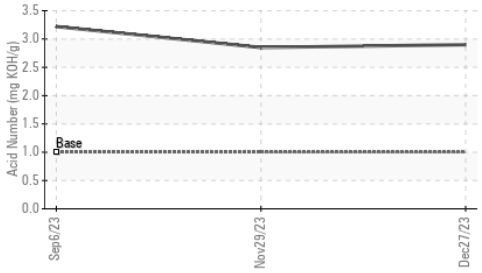
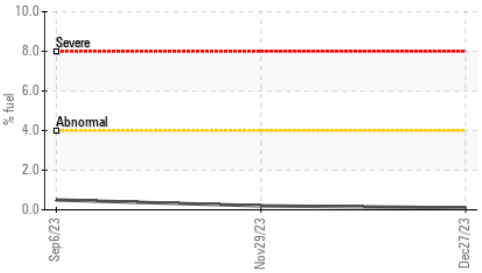
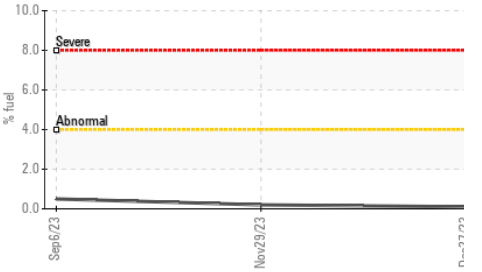
Acid Number



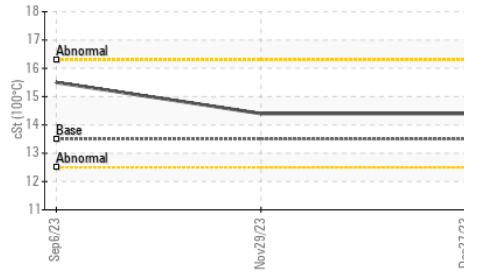
Fuel Dilution



Fuel Dilution



Viscosity @ 100°C

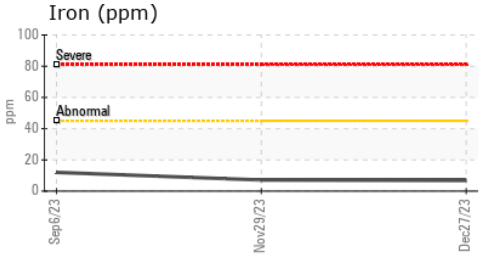


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

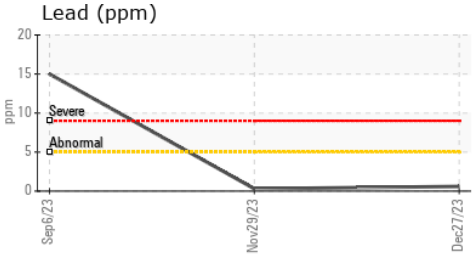
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.5	**14.4**	14.4	15.5

GRAPHS

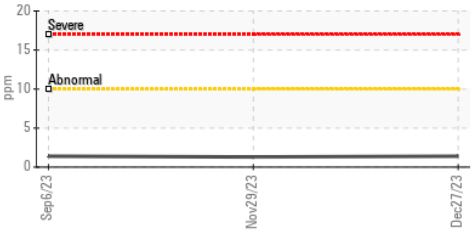
Iron (ppm)



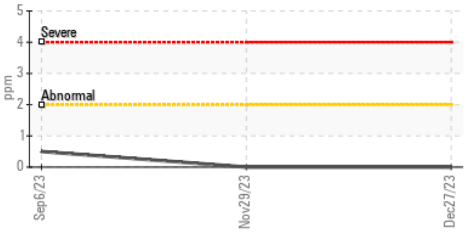
Lead (ppm)



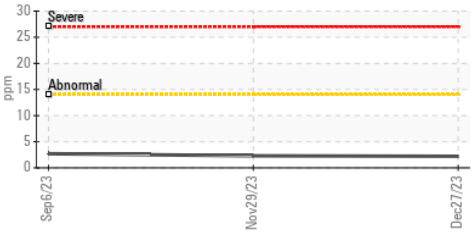
Aluminum (ppm)



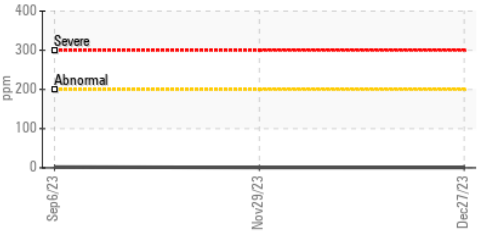
Chromium (ppm)



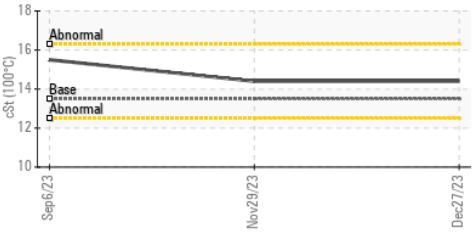
Copper (ppm)



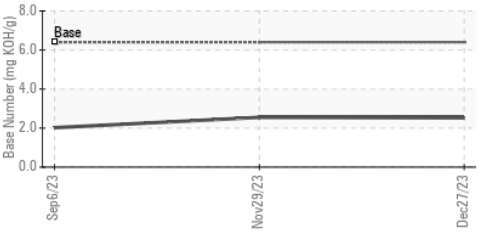
Silicon (ppm)



Viscosity @ 100°C



Base Number



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118696
Lab Number : 06128806
Unique Number : 10942957
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 25 Mar 2024
Tested : 28 Mar 2024
Diagnosed : 28 Mar 2024 - Jonathan Hester

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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