

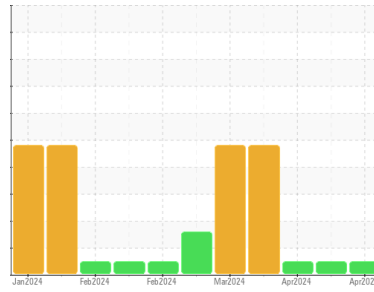


OIL ANALYSIS REPORT



Machine Id
Pinconning CAT 2 Pinconning CAT 2
 Component
Biogas Engine
 Fluid
MOBIL PEGASUS 605 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0840764	WC0840757	WC0840756
Sample Date	Client Info		19 Apr 2024	12 Apr 2024	04 Apr 2024
Machine Age	hrs	Client Info	47943	47774	47585
Oil Age	hrs	Client Info	570	401	212
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Water	WC Method		NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >14	2	1	<1
Chromium	ppm	ASTM D5185m >3	<1	0	0
Nickel	ppm	ASTM D5185m	0	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >5	1	2	1
Lead	ppm	ASTM D5185m >8	0	0	0
Copper	ppm	ASTM D5185m >5	3	2	<1
Tin	ppm	ASTM D5185m >3	2	2	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	88	108	108
Barium	ppm	ASTM D5185m	1	0	0
Molybdenum	ppm	ASTM D5185m	8	8	8
Manganese	ppm	ASTM D5185m	1	1	0
Magnesium	ppm	ASTM D5185m	62	64	55
Calcium	ppm	ASTM D5185m	1565	1522	1588
Phosphorus	ppm	ASTM D5185m	418	436	441
Zinc	ppm	ASTM D5185m	582	582	554
Sulfur	ppm	ASTM D5185m	3902	4108	4067

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >180	145	111	69
Sodium	ppm	ASTM D5185m >20	3	4	2
Potassium	ppm	ASTM D5185m >20	0	1	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624	3.3	3.2	3.1
Sulfation	Abs/.1mm	*ASTM D7415	17.0	16.7	16.3

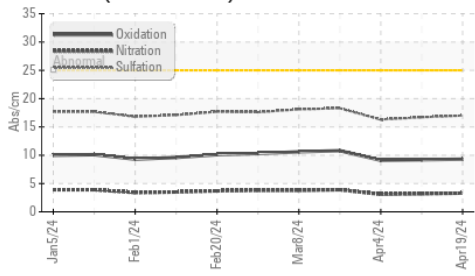
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	9.3	9.2	9.1
Acid Number (AN)	mg KOH/g	ASTM D8045	0.70	0.71	0.68
Base Number (BN)	mg KOH/g	ASTM D2896 7.1	4.38	4.50	5.12

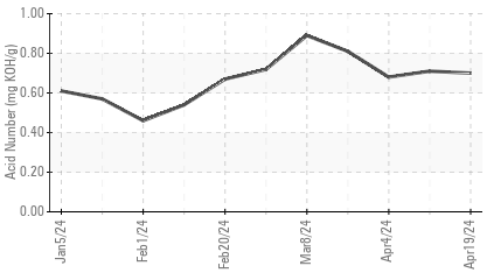


OIL ANALYSIS REPORT

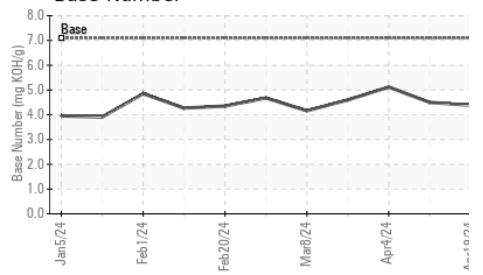
FT-IR (Direct Trend)



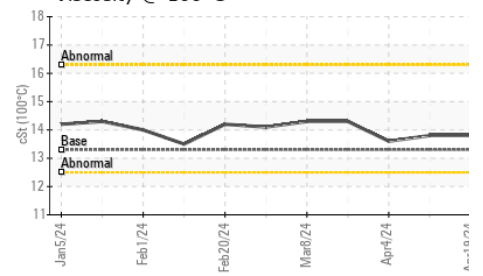
Acid Number



Base Number



Viscosity @ 100°C

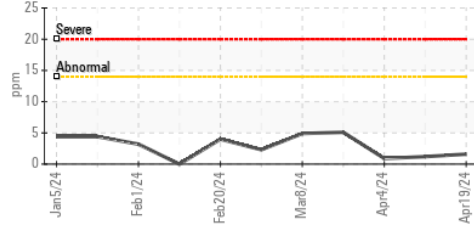


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

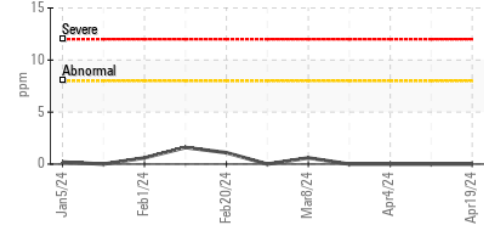
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.3	13.8	13.8

GRAPHS

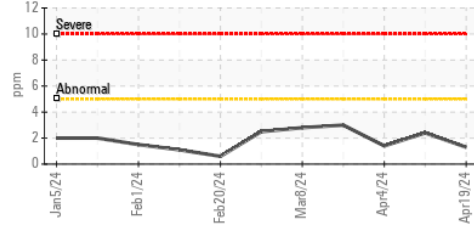
Iron (ppm)



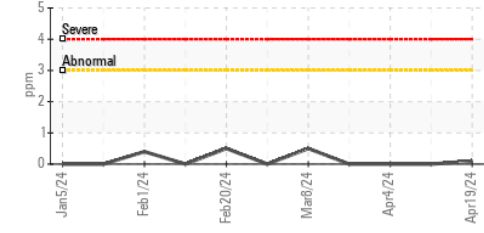
Lead (ppm)



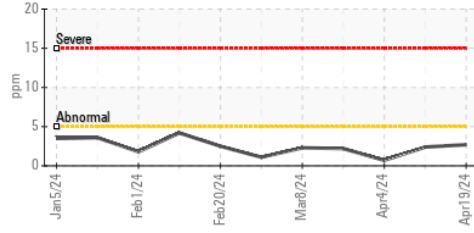
Aluminum (ppm)



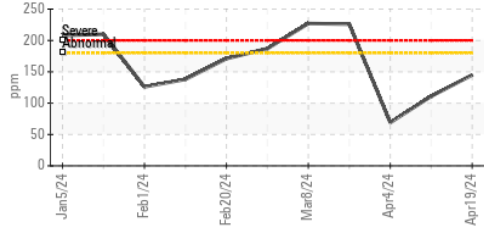
Chromium (ppm)



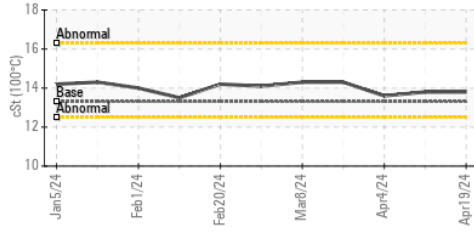
Copper (ppm)



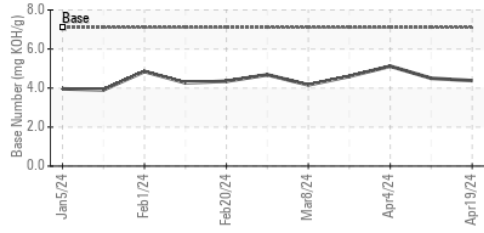
Silicon (ppm)



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0840764
Lab Number : 06156189
Unique Number : 10991612
Test Package : MOB 2
Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 24 Apr 2024 - Sean Felton

EDL NA Recips-Pinconning
 Pinconning Powerstation, 2403 E. Whitefeather Road
 Pinconning, MI 48650
 Contact: KEVIN ACKERMAN
 kevin.ackerman@edlenergy.com

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)