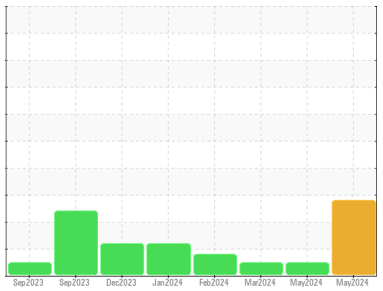
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
WMD
Machine Id
B-02-402 Biogas Blower Non-Drive End
Component
Non-Drive End Compressor
Fluid
GARDNER DENVER AEON PD (--- GAL)

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
There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal.

Fluid Condition
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		**TWC0000007**	WC0886362	WC0886368
Sample Date		Client Info		**31 May 2024**	02 May 2024	26 Mar 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**13**	4	0
Chromium	ppm	ASTM D5185m	>10	**0**	<1	<1
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	2	3
Lead	ppm	ASTM D5185m	>25	**0**	<1	<1
Copper	ppm	ASTM D5185m	>50	**9**	0	<1
Tin	ppm	ASTM D5185m	>15	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	<1	<1
Calcium	ppm	ASTM D5185m		**3**	3	3
Phosphorus	ppm	ASTM D5185m		**730**	1126	709
Zinc	ppm	ASTM D5185m		**14**	1	3
Sulfur	ppm	ASTM D5185m		**822**	1013	588

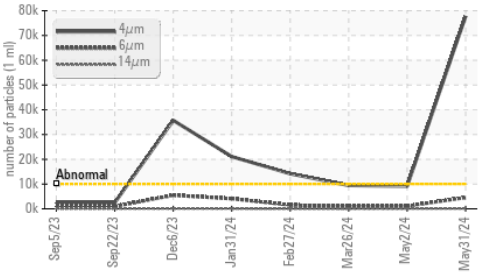
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	▲ **34**	11	6
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **77745**	9128	9429
Particles >6µm		ASTM D7647	>2500	● **4554**	1091	962
Particles >14µm		ASTM D7647	>320	**55**	39	26
Particles >21µm		ASTM D7647	>80	**15**	8	8
Particles >38µm		ASTM D7647	>20	**3**	2	0
Particles >71µm		ASTM D7647	>4	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **23/19/13**	20/17/12	20/17/12

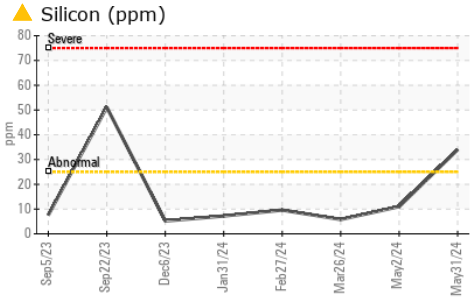
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.09**	1.06	1.05

OIL ANALYSIS REPORT

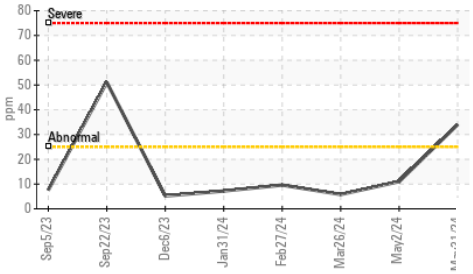
Particle Trend



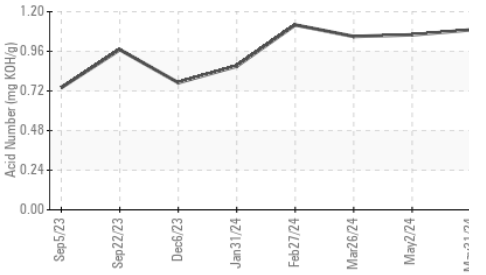
Silicon (ppm)



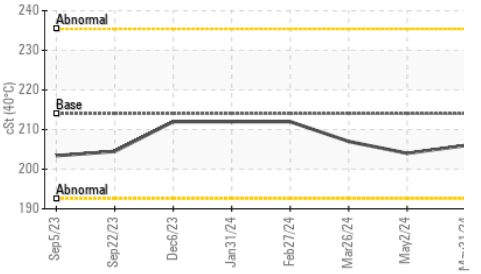
Silicon (ppm)



Acid Number

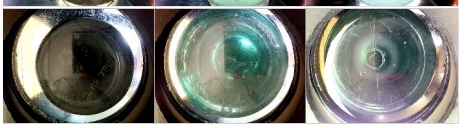


Viscosity @ 40°C



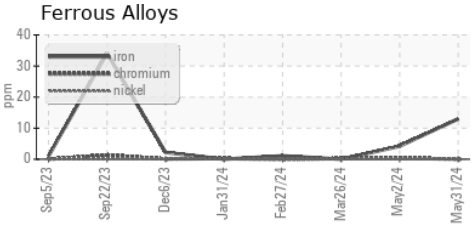
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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 @ 40°C	cSt	ASTM D445	214	**206**	204	207

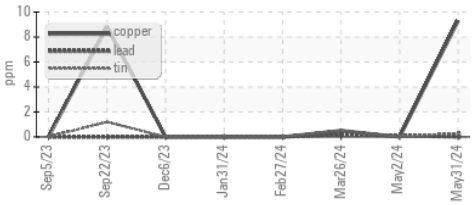
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

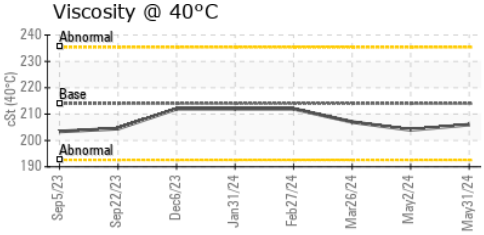
Ferrous Alloys



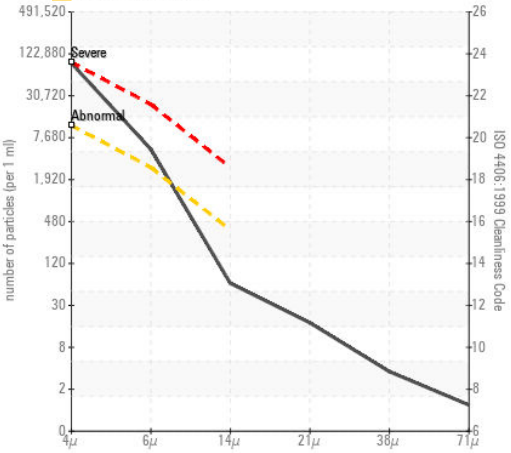
Non-ferrous Metals



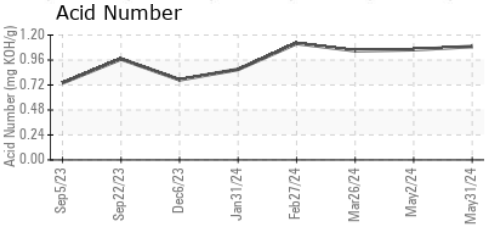
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TWC0000007
Lab Number : 06200120
Unique Number : 11062243
Test Package : PLANT

Received : 05 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 07 Jun 2024 - Don Baldridge

GEVO Inc.
2498 250th Street
Doon, IA
US 51235
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:

Report Id: GEVDOO [WUSCAR] 06200120 (Generated: 06/07/2024 10:59:29) Rev: 1

Submitted By: KYLE HUTCHINSON