



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

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

## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0886351</b>	TWC0000005	WC0886395
Sample Date		Client Info		<b>25 Jun 2024</b>	31 May 2024	02 May 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>16</b>	1	16
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	2
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>10</b>	<1	8
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

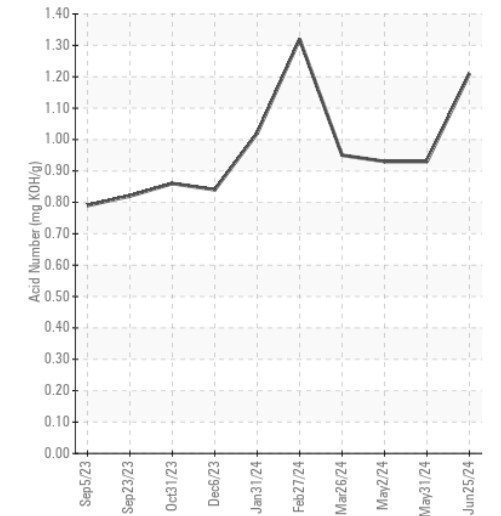
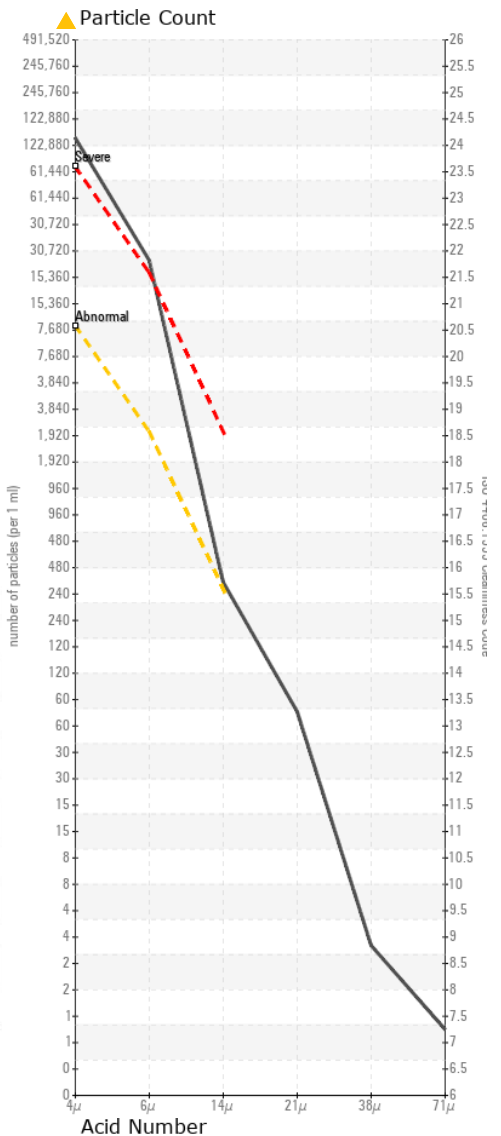
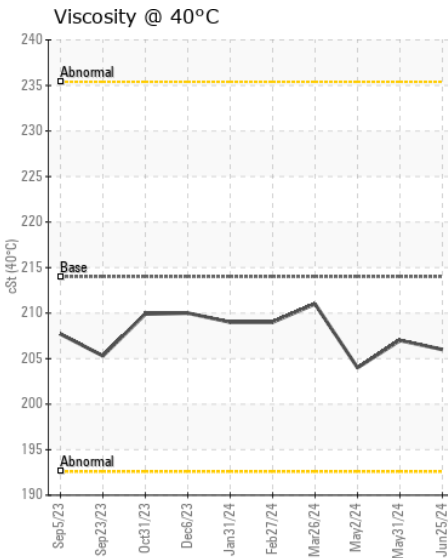
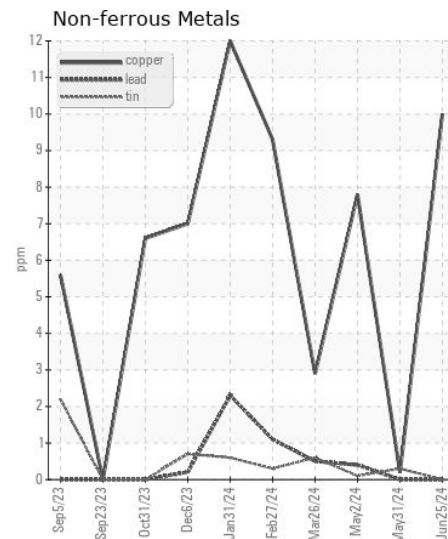
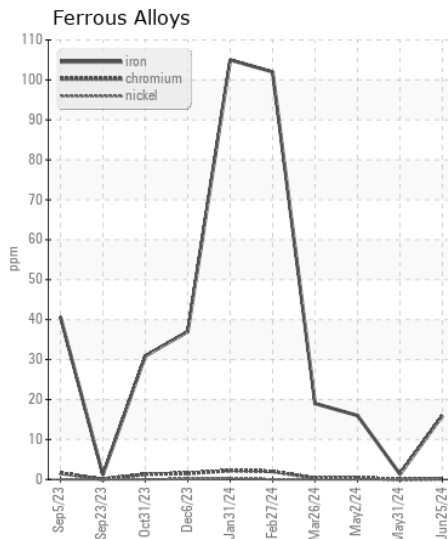
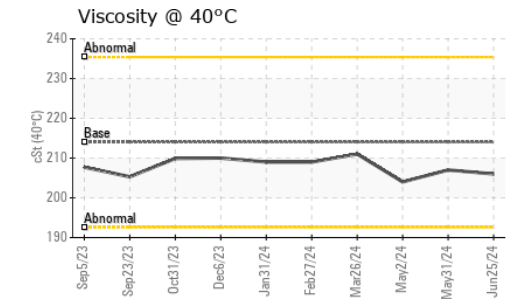
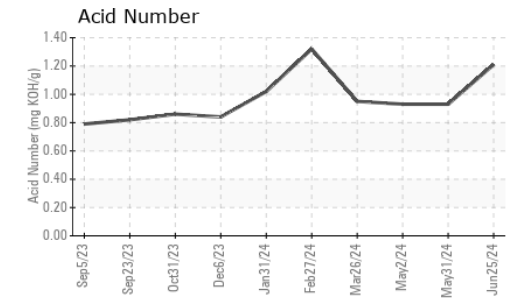
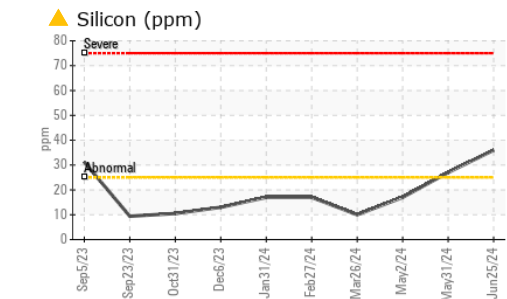
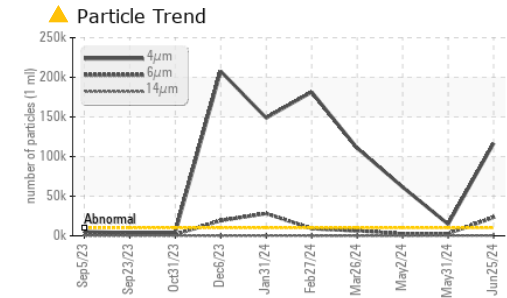
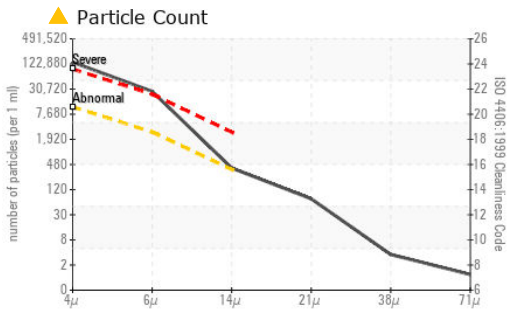
There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 36</b>	▲ 27	17
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>10000	<b>▲ 116718</b>	● 14733	▲ 61459
Particles >6µm		ASTM D7647	>2500	<b>▲ 23471</b>	● 2872	● 2623
Particles >14µm		ASTM D7647	>320	<b>● 348</b>	213	31
Particles >21µm		ASTM D7647	>80	<b>64</b>	50	4
Particles >38µm		ASTM D7647	>20	<b>3</b>	4	1
Particles >71µm		ASTM D7647	>4	<b>1</b>	2	1
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>▲ 24/22/16</b>	● 21/19/15	▲ 23/19/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>0</b>	2	3
Phosphorus	ppm	ASTM D5185m		<b>667</b>	746	718
Zinc	ppm	ASTM D5185m		<b>9</b>	3	3
Sulfur	ppm	ASTM D5185m		<b>838</b>	735	748
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.21</b>	0.93	0.93
Visc @ 40°C	cSt	ASTM D445	214	<b>206</b>	207	204



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0886351  
**Lab Number** : 06226199  
**Unique Number** : 11109692  
**Test Package** : PLANT

**Received** : 02 Jul 2024  
**Tested** : 03 Jul 2024  
**Diagnosed** : 05 Jul 2024 - Angela Borella

**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)

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F: