



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
RNG
 Machine Id
C251A Vacuum Compressor
 Component
Screw Compressor
 Fluid
COMPRESSOR OIL ISO 68 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0886358	TWC0000008	WC0886397
Sample Date		Client Info		25 Jun 2024	31 May 2024	02 May 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	35	26	18
Chromium	ppm	ASTM D5185m	>4	5	3	1
Nickel	ppm	ASTM D5185m		2	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	0	2
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>30	1	2	1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

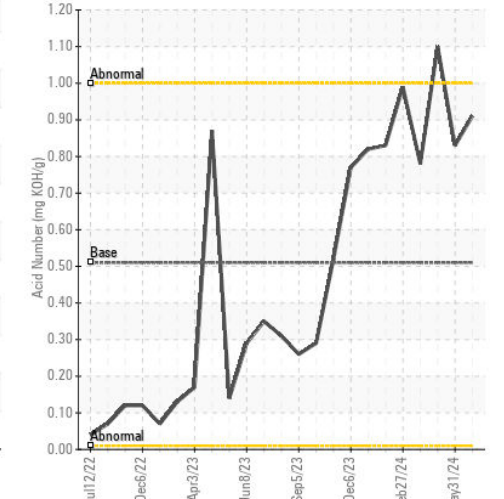
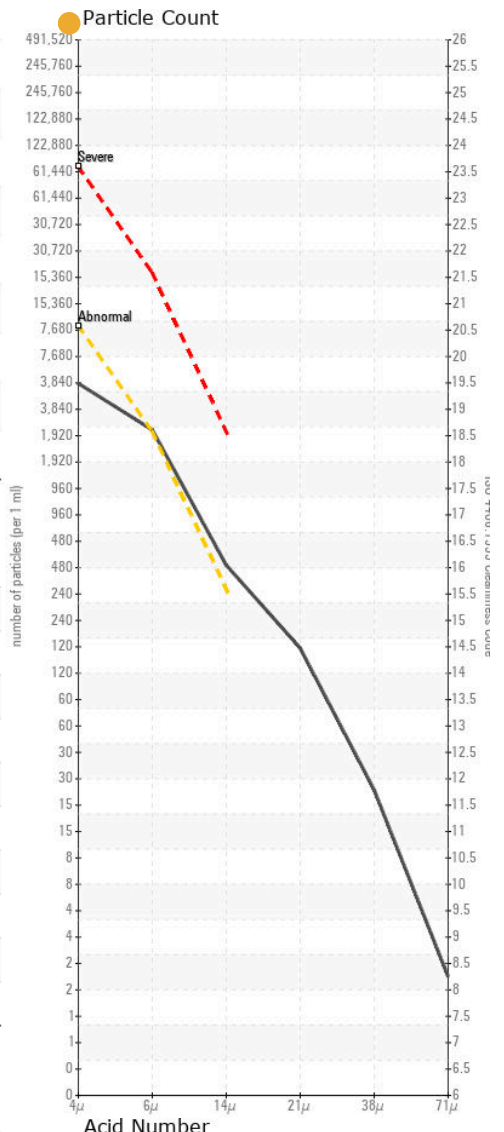
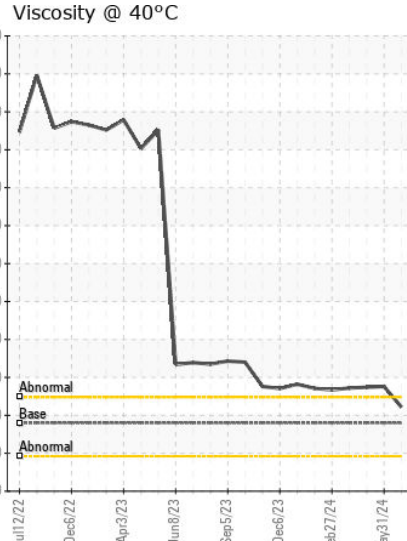
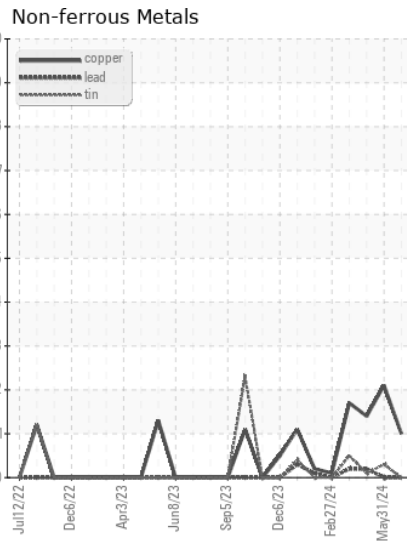
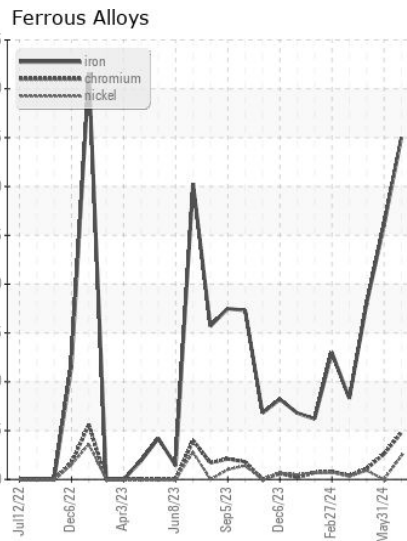
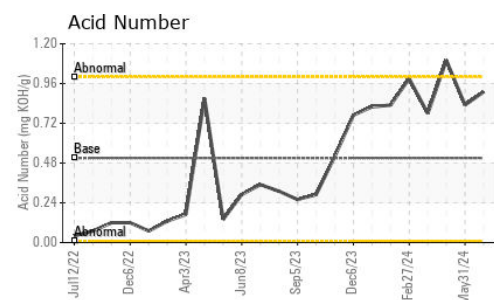
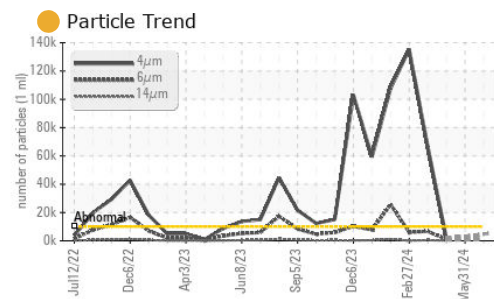
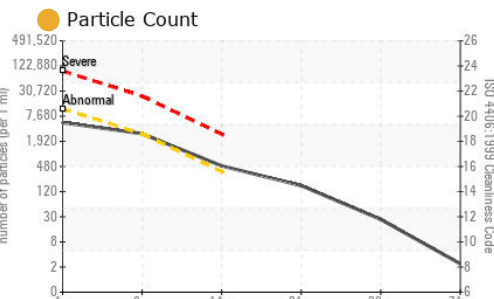
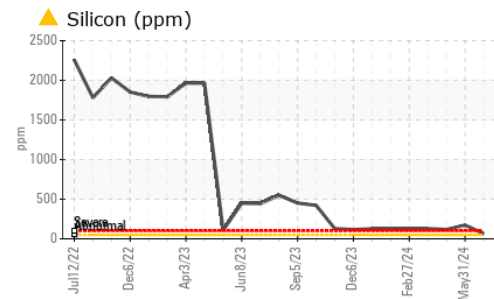
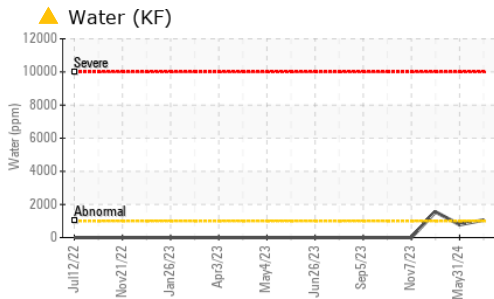
There is a moderate amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>50	▲ 65	▲ 173	▲ 117
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water	%	ASTM D6304	>0.1	▲ 0.106	0.078	▲ 0.155
ppm Water	ppm	ASTM D6304	>1000	▲ 1060	780	▲ 1550
Particles >4µm		ASTM D7647	>10000	4698	---	1749
Particles >6µm		ASTM D7647	>2500	● 2559	---	953
Particles >14µm		ASTM D7647	>320	● 436	---	162
Particles >21µm		ASTM D7647	>80	● 147	---	55
Particles >38µm		ASTM D7647	>20	● 23	---	8
Particles >71µm		ASTM D7647	>4	2	---	1
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● 19/19/16	---	18/17/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	● HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	0.2%	▲ 0.2%

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	7	5
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	<1	0
Molybdenum	ppm	ASTM D5185m	5	<1	0	<1
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	5	1	0	1
Calcium	ppm	ASTM D5185m	5	9	9	11
Phosphorus	ppm	ASTM D5185m	150	70	65	65
Zinc	ppm	ASTM D5185m	5	4	0	7
Sulfur	ppm	ASTM D5185m	5000	830	1071	853
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	0.91	0.83	1.10
Visc @ 40°C	cSt	ASTM D445	68	72.2	▲ 77.6	▲ 77.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0886358

Lab Number : 06226191

Unique Number : 11109684

Test Package : PLANT

Received : 02 Jul 2024

Tested : 09 Jul 2024

Diagnosed : 09 Jul 2024 - Jonathan Hester

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: