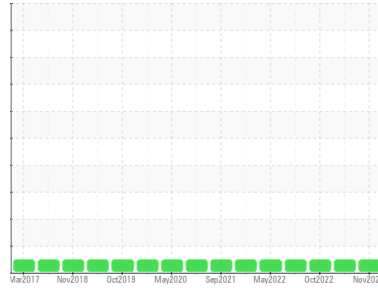




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
GF-1
 Component
Turbine
 Fluid

TURBINE OIL ISO 32 (--- GAL)

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. The amount and size of particulates present in the system are acceptable.

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		USP255342	USP245497	USP240835
Sample Date	Client Info		09 Nov 2023	27 Jan 2023	04 Oct 2022
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >15	0	2	2
Chromium	ppm	ASTM D5185m >4	0	0	0
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m	0	<1	0
Copper	ppm	ASTM D5185m >5	<1	<1	0
Tin	ppm	ASTM D5185m >5	0	1	0
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 5	0	0	0
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 5	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 5	0	2	0
Calcium	ppm	ASTM D5185m 10	0	4	0
Phosphorus	ppm	ASTM D5185m 275	7	9	0
Zinc	ppm	ASTM D5185m 7	0	2	0
Sulfur	ppm	ASTM D5185m 400	133	137	0

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	1	2	2
Sodium	ppm	ASTM D5185m	1	0	<1
Potassium	ppm	ASTM D5185m >20	<1	4	<1
Water	%	ASTM D6304 >0.03	0.002	0.003	0.002
ppm Water	ppm	ASTM D6304 >300	22.2	27.6	20.9

FLUID CLEANLINESS

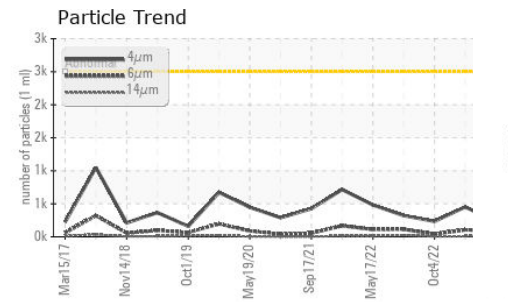
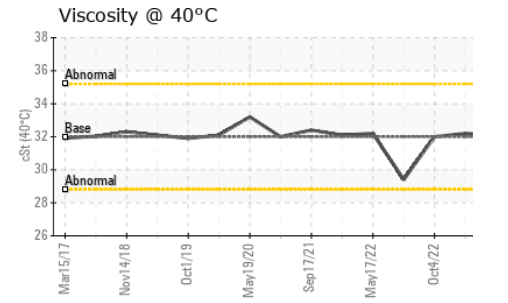
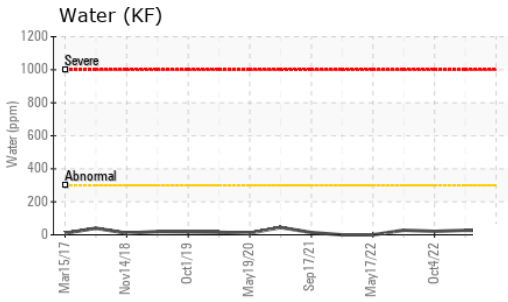
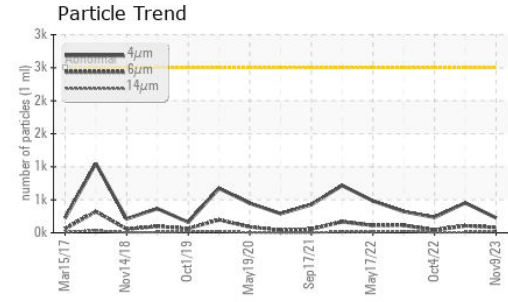
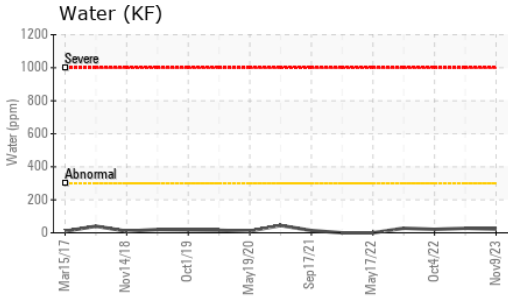
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	227	453	234
Particles >6µm	ASTM D7647	>640	81	106	42
Particles >14µm	ASTM D7647	>80	14	9	5
Particles >21µm	ASTM D7647	>20	4	2	1
Particles >38µm	ASTM D7647	>4	1	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	15/14/11	16/14/10	15/13/10

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.13	0.04	0.07	0.07



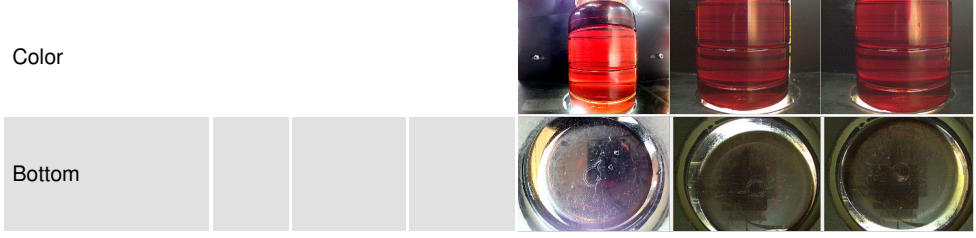
OIL ANALYSIS REPORT



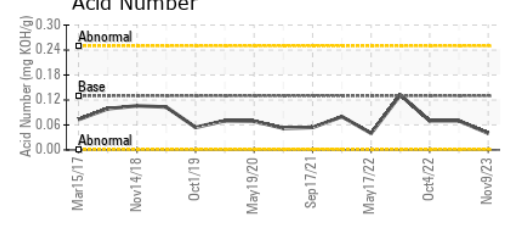
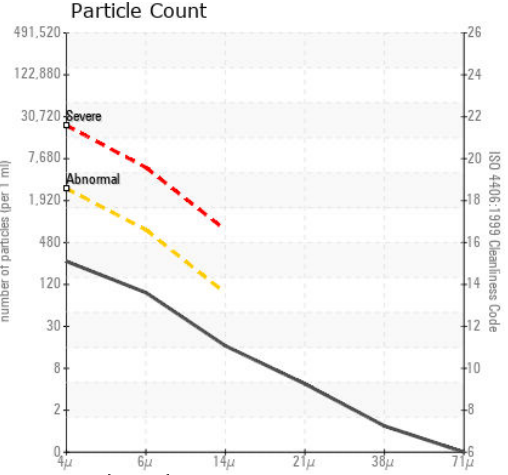
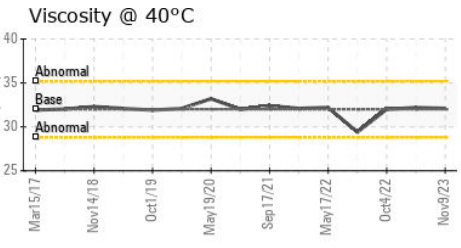
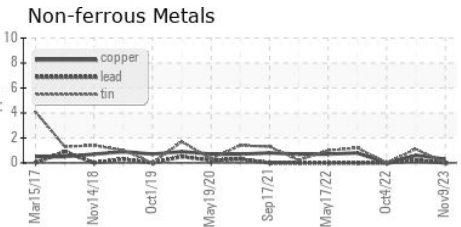
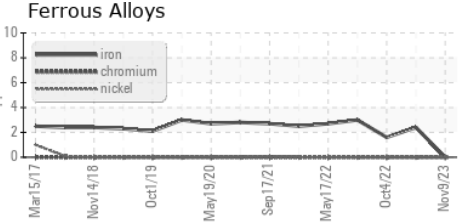
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.1	32.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP255342 **Received** : 13 Nov 2023
Lab Number : 06006370 **Diagnosed** : 14 Nov 2023
Unique Number : 10740132 **Diagnostician** : Doug Bogart
Test Package : IND 2

ENERGY CENTER DOVER LLC - DCDOV
 1280 W NORTH ST
 DOVER, DE
 US 19904
 Contact: ERNIE JUST
 ernie.just@clearwayenergy.com
 T: (302)678-4353
 F:

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)