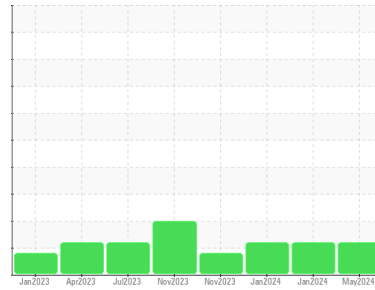




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KD-2 LP NOX PUMP
 Component
Hydraulic System
 Fluid
MOBIL DELVAC 1 5W40 (--- GAL)

DIAGNOSIS

Recommendation

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.

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		USP0012891	USP0007088	USP0007079
Sample Date	Client Info		30 May 2024	25 Jan 2024	25 Jan 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	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	2	0	<1
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	3	0
Lead	ppm	ASTM D5185m >20	<1	<1	0
Copper	ppm	ASTM D5185m >20	<1	0	0
Tin	ppm	ASTM D5185m >20	0	<1	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 291	117	131	0
Barium	ppm	ASTM D5185m 0.0	0	0	0
Molybdenum	ppm	ASTM D5185m 8.0	42	43	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 624	864	841	0
Calcium	ppm	ASTM D5185m 2158	1014	932	4
Phosphorus	ppm	ASTM D5185m 1132	1112	1024	394
Zinc	ppm	ASTM D5185m 1300	1247	1227	6
Sulfur	ppm	ASTM D5185m 3616	3639	3021	74

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	4	19
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	<1	1	0
Water	%	ASTM D6304 >0.05	0.043	0.038	0.003
ppm Water	ppm	ASTM D6304 >500	438	386	28

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 10982	▲ 11045	▲ 32477
Particles >6µm	ASTM D7647	>1300	● 2285	● 1972	▲ 3352
Particles >14µm	ASTM D7647	>160	100	65	52
Particles >21µm	ASTM D7647	>40	30	15	9
Particles >38µm	ASTM D7647	>10	2	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/18/14	▲ 21/18/13	▲ 22/19/13

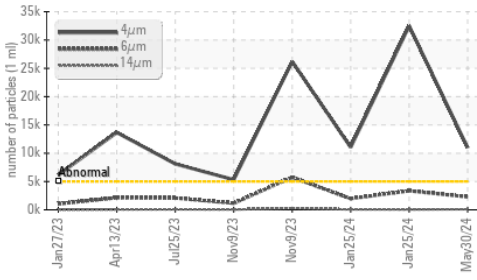
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.18	1.33	0.61

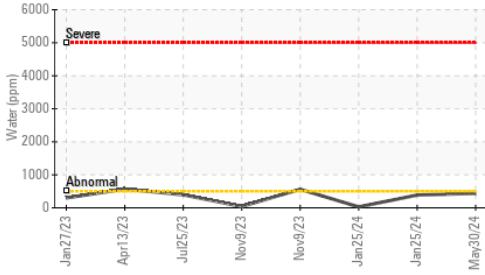


OIL ANALYSIS REPORT

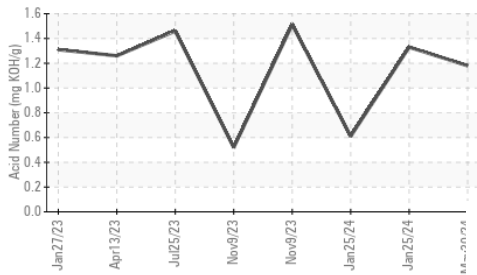
Particle Trend



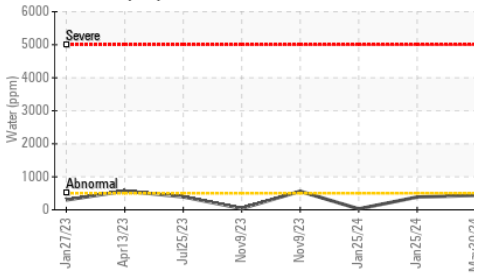
Water (KF)



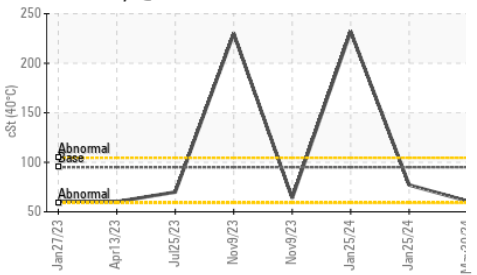
Acid Number



Water (KF)



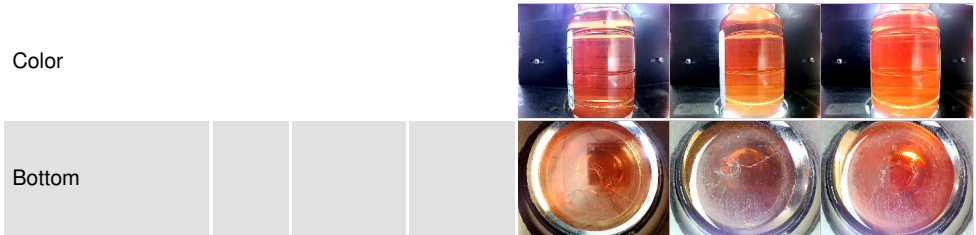
Viscosity @ 40°C



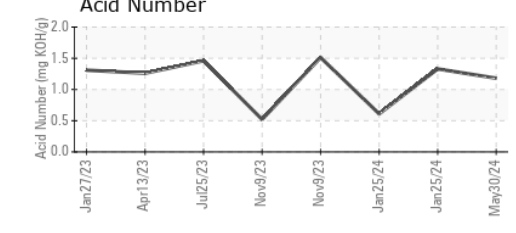
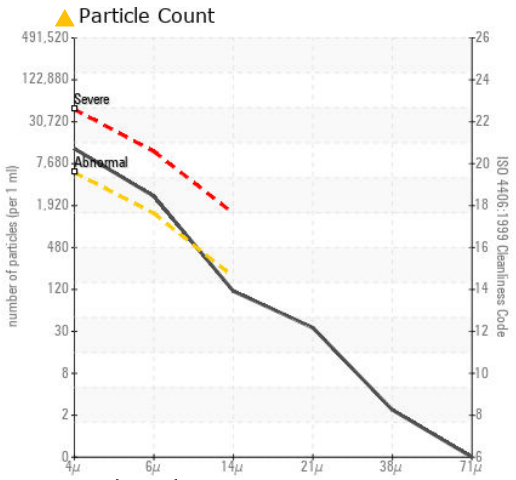
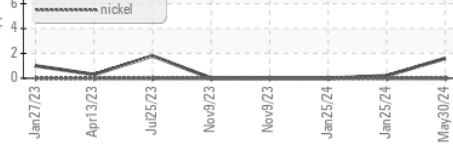
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	95	60.8	77.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0012891
Lab Number : 06196714
Unique Number : 11058837
Test Package : IND 2
Received : 31 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Doug Bogart

ENERGY CENTER DOVER LLC - DCODOV
 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)