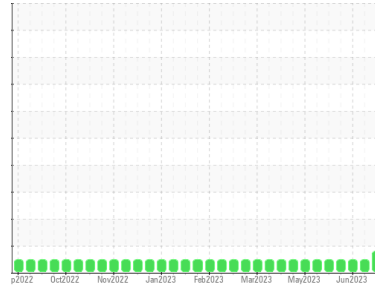




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CAPTIS ENERGY ENG 1
 Component
Natural Gas Engine
 Fluid
Q8G8 (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0835627	WC0801823	WC0801825
Sample Date	Client Info			18 Jul 2023	26 Jun 2023	19 Jun 2023
Machine Age	hrs	Client Info		47158	14647	14479
Oil Age	hrs	Client Info		1699	3164	2996
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	13	2	2
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	5	3	2
Lead	ppm	ASTM D5185m	>20	<1	0	2
Copper	ppm	ASTM D5185m	>15	3	<1	0
Tin	ppm	ASTM D5185m	>5	▲ 6	0	<1
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		<1	4	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	1	1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		3	12	12
Calcium	ppm	ASTM D5185m		2813	2462	2488
Phosphorus	ppm	ASTM D5185m		492	468	494
Zinc	ppm	ASTM D5185m		592	567	595
Sulfur	ppm	ASTM D5185m		3628	3025	3193

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	50	3	3
Sodium	ppm	ASTM D5185m	>20	8	<1	1
Potassium	ppm	ASTM D5185m	>20	5	1	3

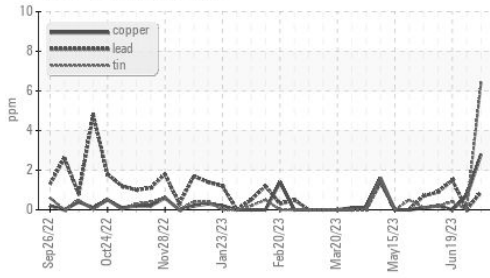
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>2	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.0	8.7	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>20	19.5	18.7	18.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>20	15.4	15.7	15.7
Acid Number (AN)	mg KOH/g	ASTM D8045		1.47	0.90	0.98
Base Number (BN)	mg KOH/g	ASTM D2896		6.41	6.74	6.35



OIL ANALYSIS REPORT

▲ Non-ferrous Metals

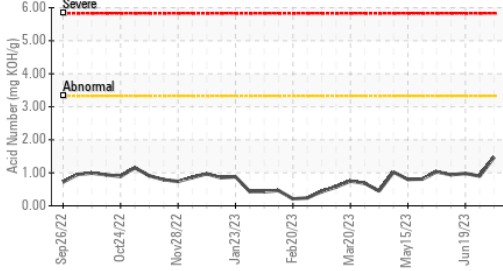


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

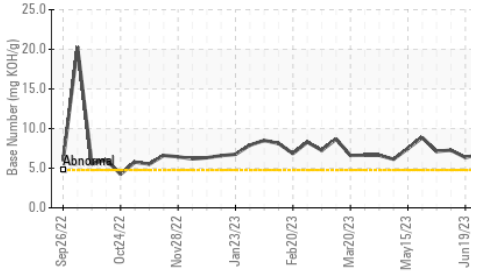
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.0	13.9	13.8

GRAPHS

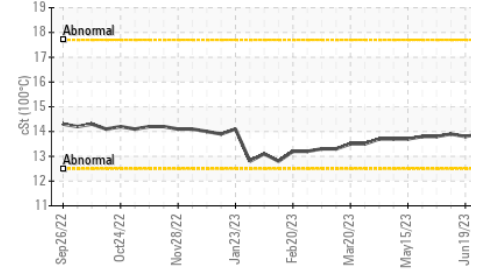
Acid Number



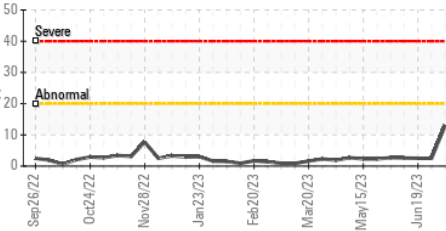
Base Number



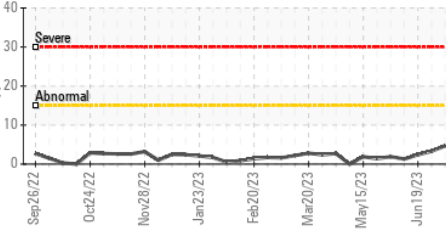
Viscosity @ 100°C



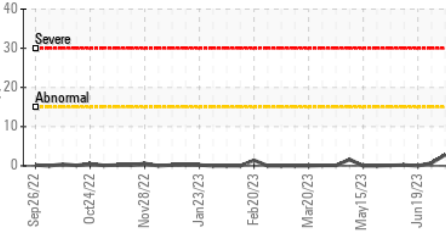
Iron (ppm)



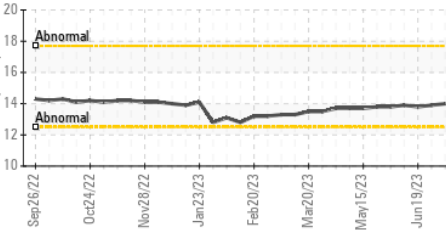
Aluminum (ppm)



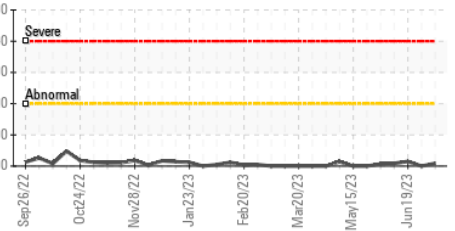
Copper (ppm)



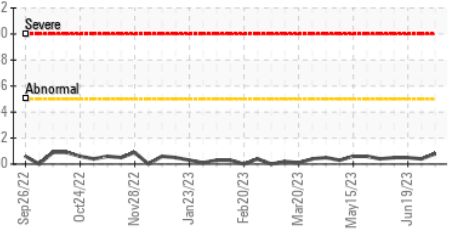
Viscosity @ 100°C



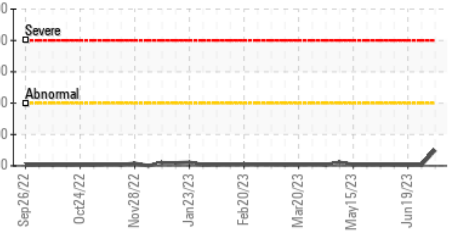
Lead (ppm)



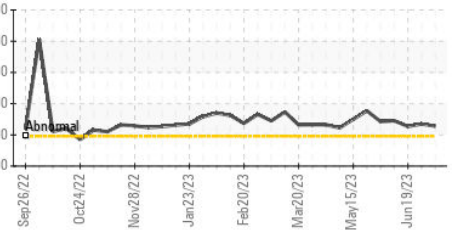
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0835627
Lab Number : 05902880
Unique Number : 10564236
Test Package : MOB 2

Received : 19 Jul 2023
Diagnosed : 21 Jul 2023
Diagnostician : Don Baldrige

CUBE DISTRICT ENERGY
 1000 WINDWARD CONCOURSE SUITE 150
 ALPHARETTA, GA
 US 30005
 Contact: RYAN INGALLS
 ryan.ingalls@cubedistrictenergy.com

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: (217)433-4972

F: