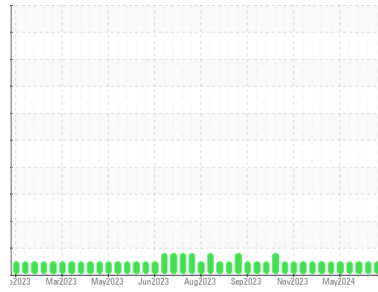




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CAPTIS ENERGY ENG 3 (S/N 1251399)
 Component
Natural Gas Engine
 Fluid
MAHLER Q8 Mahler G8 SAE 40 (--- 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.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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	WC0944696	WC0944698	WC0944701	
Sample Date	Client Info	11 Jun 2024	03 Jun 2024	28 May 2024	
Machine Age	hrs	Client Info	25380	25189	25050
Oil Age	hrs	Client Info	1088	897	758
Oil Changed	Client Info	N/A	N/A	N/A	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	2	2	3
Chromium	ppm	ASTM D5185m >5	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >15	2	2	2
Lead	ppm	ASTM D5185m >20	<1	0	<1
Copper	ppm	ASTM D5185m >15	<1	0	<1
Tin	ppm	ASTM D5185m >5	0	0	<1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m	0	0	1
Molybdenum	ppm	ASTM D5185m	2	2	2
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	14	5	13
Calcium	ppm	ASTM D5185m	2493	2482	2181
Phosphorus	ppm	ASTM D5185m	516	519	494
Zinc	ppm	ASTM D5185m	599	591	543
Sulfur	ppm	ASTM D5185m	3052	2899	2514

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >200	6	2	2
Sodium	ppm	ASTM D5185m >20	<1	1	<1
Potassium	ppm	ASTM D5185m >20	1	0	2

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >2	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	7.5	7.3	7.2
Sulfation	Abs./1mm	*ASTM D7415 >20	15.9	15.6	15.4

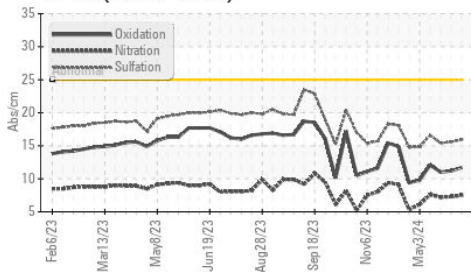
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	*ASTM D7414 >20	11.7	11.2	11.0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.27	0.28	1.639
Base Number (BN)	mg KOH/g	ASTM D2896 8.0	7.06	6.74	7.31

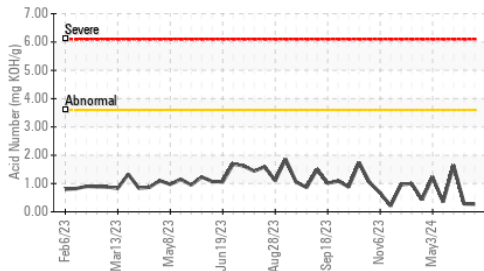


OIL ANALYSIS REPORT

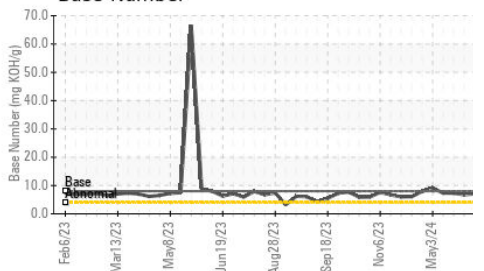
FT-IR (Direct Trend)



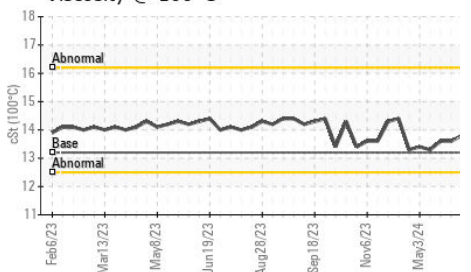
Acid Number



Base Number



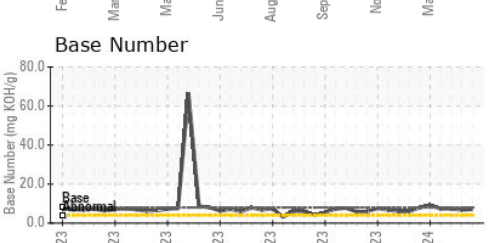
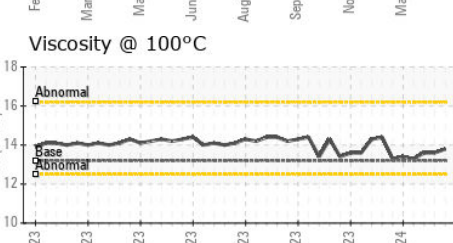
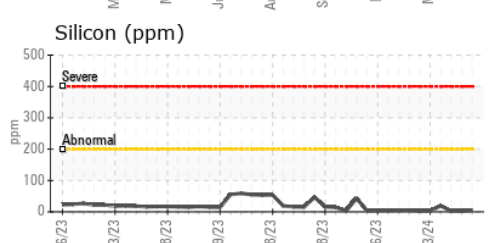
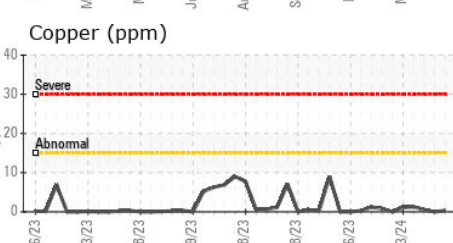
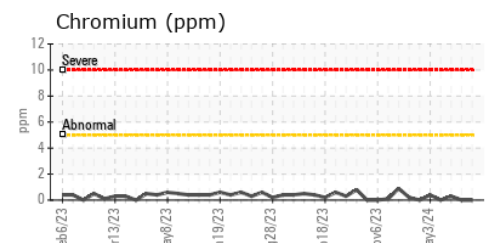
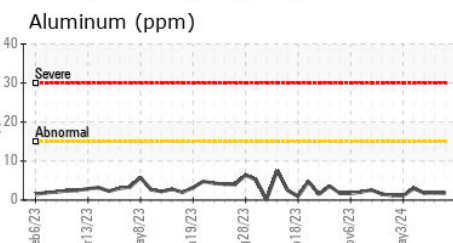
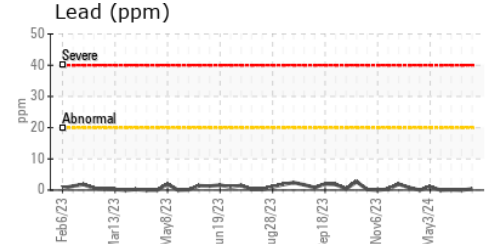
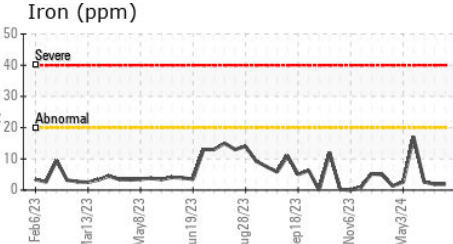
Viscosity @ 100°C



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	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	13.2	13.8	13.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0944696
Lab Number : 06207992
Unique Number : 11075453
Test Package : MOB 2

CUBE DISTRICT ENERGY
 1000 WINDWARD CONCOURSE SUITE 150
 ALPHARETTA, GA
 US 30005
 Contact: ED LEWIS
 ed.lewis@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)