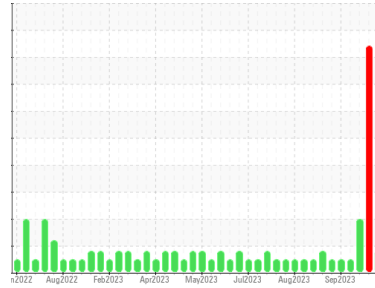




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
LIDM02BE (S/N GZJ00681)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (540 LTR)

DIAGNOSIS

Recommendation

Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Usure de cylindre, de vilebrequin ou d'arbre à cames.

Contamination

Il n'y a aucun indice de contamination dans l'huile.

Fluid Condition

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. Le AN est acceptable pour ce fluide. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0772216	WC0817908	WC0817903
Sample Date	Client Info		25 Oct 2023	18 Oct 2023	10 Oct 2023
Machine Age	hrs	Client Info	5762	5627	5482
Oil Age	hrs	Client Info	133	620	475
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			ABNORMAL	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m) >15	▲ 15	22	▲ 14
Chromium	ppm	ASTM D5185(m) >4	0	<1	0
Nickel	ppm	ASTM D5185(m) >2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >5	<1	<1	<1
Aluminum	ppm	ASTM D5185(m) >6	2	2	2
Lead	ppm	ASTM D5185(m) >9	<1	<1	<1
Copper	ppm	ASTM D5185(m) >6	<1	2	2
Tin	ppm	ASTM D5185(m) >4	<1	2	2
Antimony	ppm	ASTM D5185(m)	<1	3	3
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	4	3	3
Barium	ppm	ASTM D5185(m)	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	1	2	3
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	10	10	9
Calcium	ppm	ASTM D5185(m)	1717	1787	1787
Phosphorus	ppm	ASTM D5185(m)	240	243	242
Zinc	ppm	ASTM D5185(m)	278	292	289
Sulfur	ppm	ASTM D5185(m)	2138	2752	2693
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >181	49	112	100
Sodium	ppm	ASTM D5185(m)	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<1	1	1

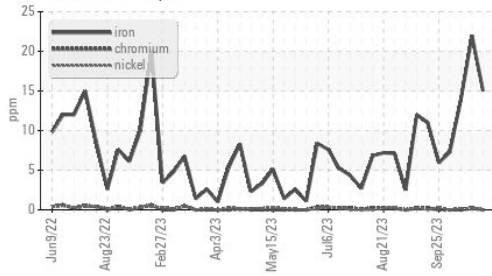
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	4.8	4.9	4.9
Sulfation	Abs./1mm	ASTM D7415* >30	19.1	22.0	21.7



OIL ANALYSIS REPORT

▲ Ferrous Alloys



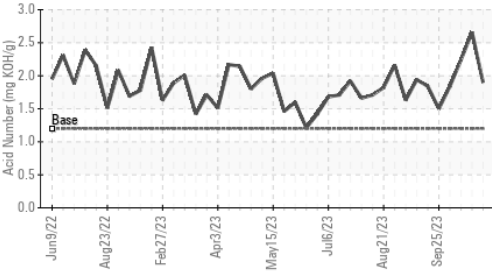
FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	8.5	10.0	10.2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.2	1.90	▲ 2.66	2.24
Base Number (BN)	mg KOH/g	ASTM D2896*	4.5	3.55	▲ 2.43	2.33
i-pH	Scale 0-14	ASTM D7946*	<4.5	5.45	4.82	▲ 4.39

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

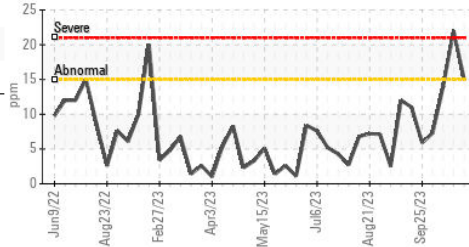
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	13.2	13.3	13.2

GRAPHS

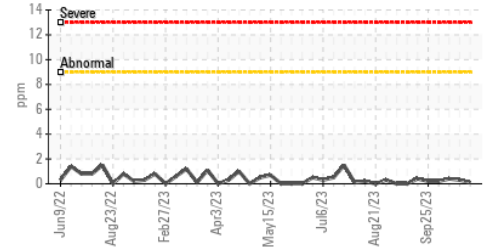
Acid Number



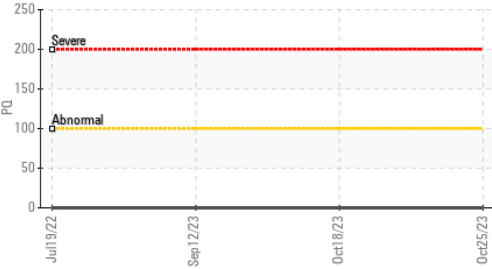
▲ Iron (ppm)



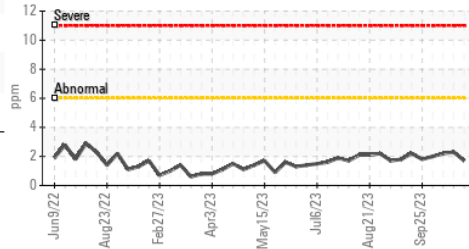
Lead (ppm)



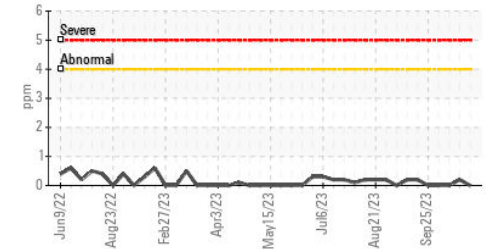
PQ



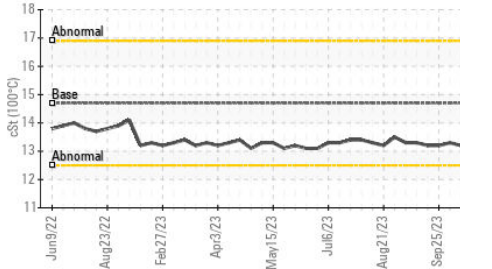
Aluminum (ppm)



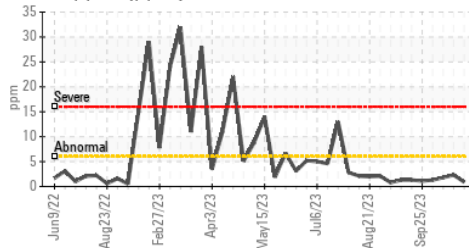
Chromium (ppm)



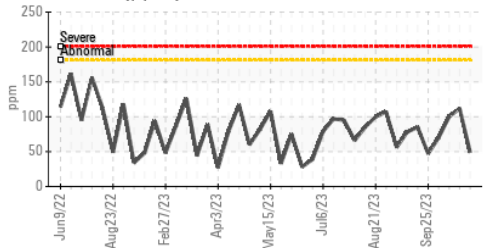
Viscosity @ 100°C



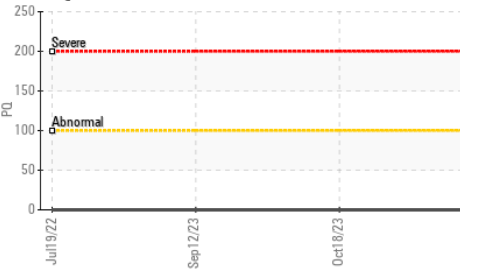
Copper (ppm)



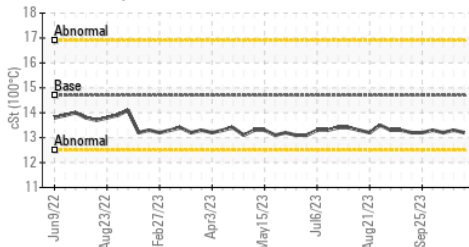
Silicon (ppm)



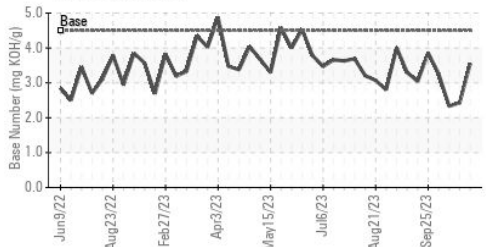
PQ



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0772216 **Received** : 27 Oct 2023
Lab Number : 02592380 **Diagnosed** : 30 Oct 2023
Unique Number : 5669459 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, PQ, TAN Auto, TAN Man)

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 6985 CHEMIN DES SOURCES
 LACHUTE, QC
 CA J8H 2C5
 Contact: Eloi Legault
 eloi.legault@energydi.com
 T: (450)526-4001
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.