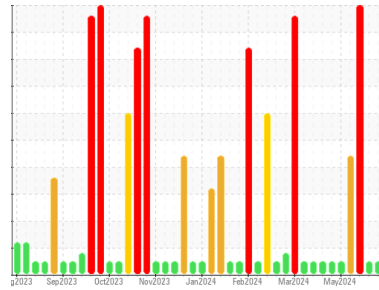




OIL ANALYSIS REPORT

Machine Id
LIDM01BE (S/N GZJ-00169)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (540 LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0874479	WC0904321	WC0904276
Sample Date	Client Info			10 Jun 2024	03 Jun 2024	27 May 2024
Machine Age	hrs	Client Info		6769	6602	6438
Oil Age	hrs	Client Info		328	161	594
Oil Changed	Client Info			Not Chngd	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	<1.0	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>45	15	13	▲ 89
Chromium	ppm	ASTM D5185(m)	>2	0	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	2	1	2
Lead	ppm	ASTM D5185(m)	>5	0	0	0
Copper	ppm	ASTM D5185(m)	>14	2	<1	4
Tin	ppm	ASTM D5185(m)	>13	2	<1	4
Antimony	ppm	ASTM D5185(m)		2	1	7
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)		3	4	3
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		<1	<1	2
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		10	9	12
Calcium	ppm	ASTM D5185(m)		1660	1636	1698
Phosphorus	ppm	ASTM D5185(m)		231	238	231
Zinc	ppm	ASTM D5185(m)		285	278	293
Sulfur	ppm	ASTM D5185(m)		2406	2101	3633
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

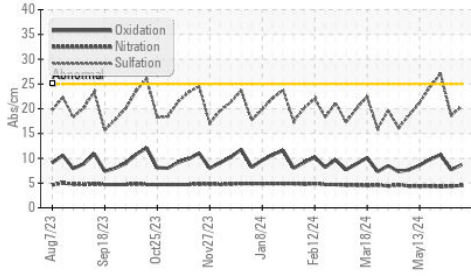
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>200	93	53	170
Sodium	ppm	ASTM D5185(m)		<1	<1	1
Potassium	ppm	ASTM D5185(m)	>20	2	1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	4.5	4.4	4.3
Sulfation	Abs./1mm	ASTM D7415*	>30	20.4	18.7	27.1

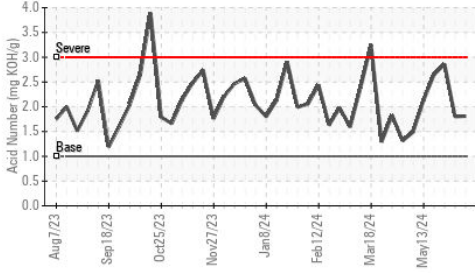


OIL ANALYSIS REPORT

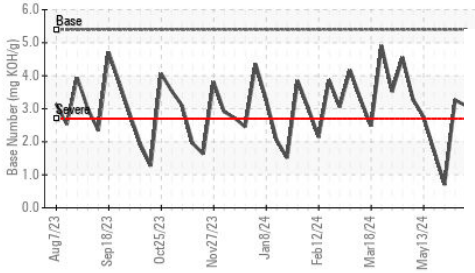
FT-IR (Direct Trend)



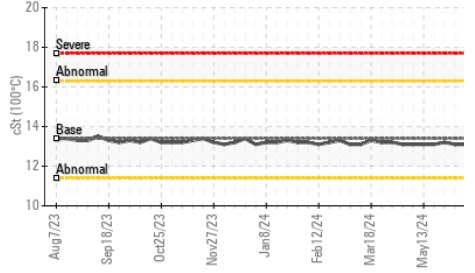
Acid Number



Base Number



Viscosity @ 100°C

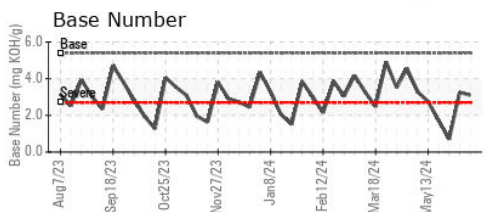
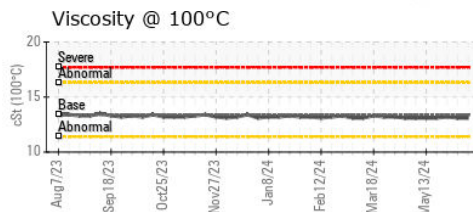
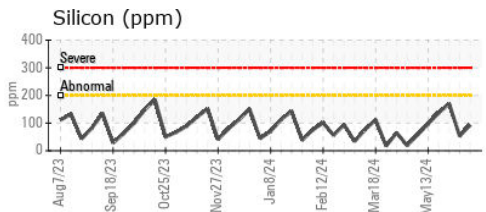
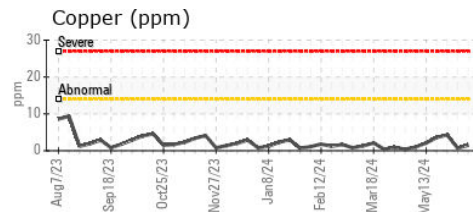
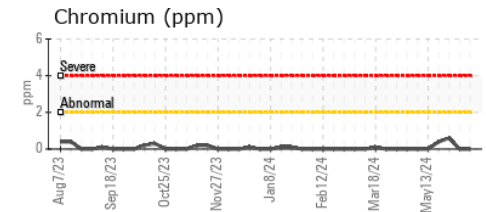
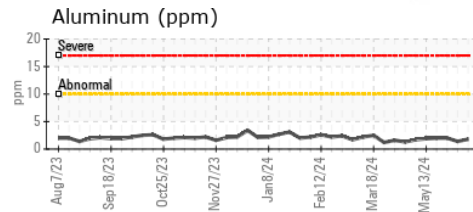
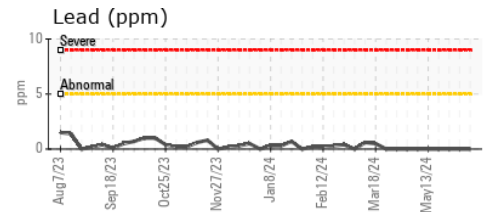
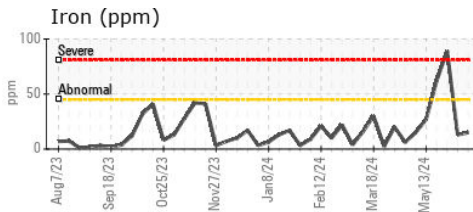


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	8.7	7.7	10.7
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	1.81	1.80	▲ 2.86
Base Number (BN)	mg KOH/g	ASTM D2896*	5.4	3.10	3.26	▲ 0.70
i-pH	Scale 0-14	ASTM D7946*	<4.5	5.61	4.79	▲ 2.21

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)	13.4	13.1	13.1	13.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0874479 **Received** : 11 Jun 2024
Lab Number : **02641097** **Tested** : 12 Jun 2024
Unique Number : 5798636 **Diagnosed** : 12 Jun 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto, TAN Man, Visual)

EDL NA Recips-Lydia
 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.