

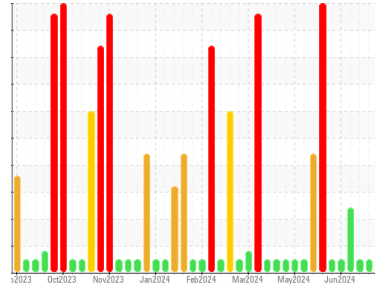


# OIL ANALYSIS REPORT



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

### Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

### Wear

Les taux d'usure de tous les composants sont normaux.

### 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'état de l'huile permet d'en prolonger l'utilisation.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0954685</b>	WC0904259	WC0954720
Sample Date	Client Info		<b>08 Jul 2024</b>	02 Jul 2024	25 Jun 2024
Machine Age	hrs	Client Info	<b>7329</b>	7217	7104
Oil Age	hrs	Client Info	<b>312</b>	200	87
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>45	<b>7</b>	5	3
Chromium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185(m)	>14	<b>2</b>	1	<1
Tin	ppm	ASTM D5185(m)	>13	<b>2</b>	2	<1
Antimony	ppm	ASTM D5185(m)		<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>5</b>	6	6
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>6</b>	6	6
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>12</b>	10	9
Calcium	ppm	ASTM D5185(m)		<b>1715</b>	1720	1670
Phosphorus	ppm	ASTM D5185(m)		<b>237</b>	232	232
Zinc	ppm	ASTM D5185(m)		<b>294</b>	290	284
Sulfur	ppm	ASTM D5185(m)		<b>1701</b>	1684	1575
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

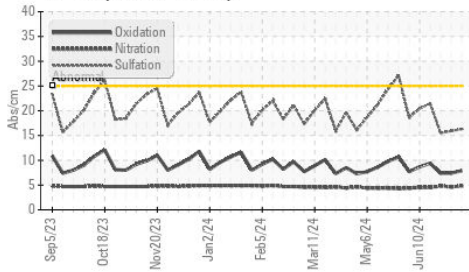
## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>200	<b>76</b>	67	30
Sodium	ppm	ASTM D5185(m)		<b>4</b>	7	7
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2

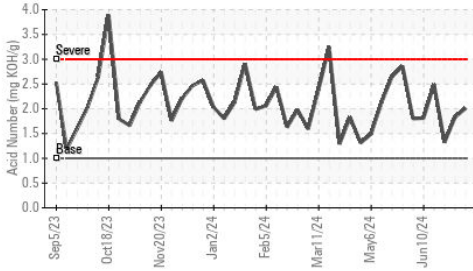
## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>4.8</b>	4.6	4.8
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>16.3</b>	15.9	15.5

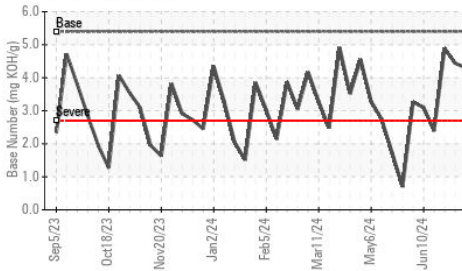
### FT-IR (Direct Trend)



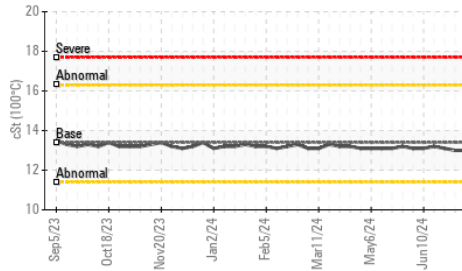
### Acid Number



### Base Number



### Viscosity @ 100°C



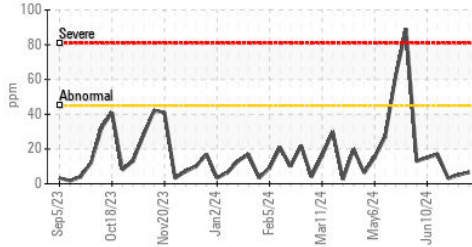
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>7.9</b>	7.4	7.4
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	<b>2.01</b>	1.83	1.32
Base Number (BN)	mg KOH/g	ASTM D2896*	5.4	<b>4.30</b>	4.44	4.89
i-pH	Scale 0-14	ASTM D7946*	<4.5	<b>5.58</b>	5.55	5.66

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

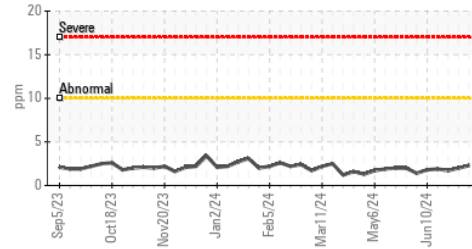
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.4	<b>13.0</b>	13.0	13.1

### GRAPHS

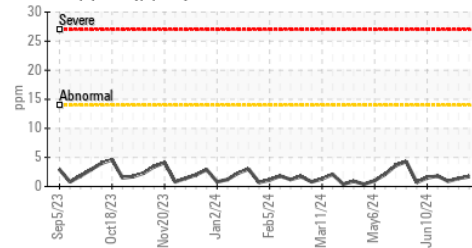
#### Iron (ppm)



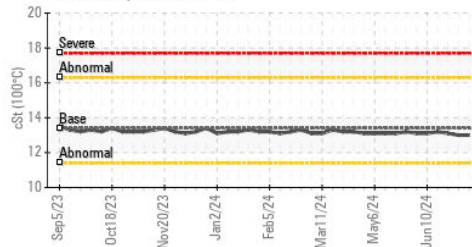
#### Aluminum (ppm)



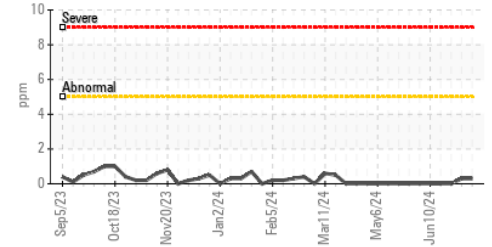
#### Copper (ppm)



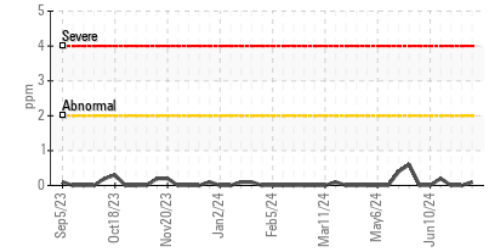
#### Viscosity @ 100°C



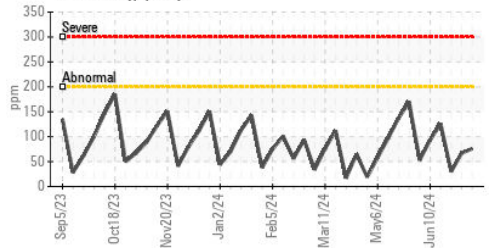
#### Lead (ppm)



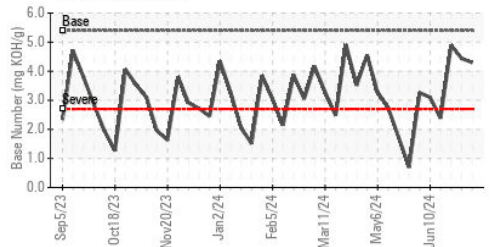
#### Chromium (ppm)



#### Silicon (ppm)



#### Base Number



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0954685 **Received** : 10 Jul 2024  
**Lab Number** : **02646964** **Tested** : 16 Jul 2024  
**Unique Number** : 5812516 **Diagnosed** : 16 Jul 2024 - Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: i-pH, TAN Auto, TAN Man )

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.

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