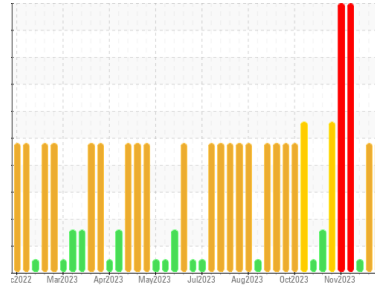




# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**DECM01BE (S/N ZBA01290)**  
 Component  
**Biogas Engine**  
 Fluid  
**CHEVRON HDAX 6500 LFG GAS ENGINE OIL (100 GAL)**

## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0732908</b>	WC0732867	WC0732866
Sample Date	Client Info		<b>05 Jan 2024</b>	27 Dec 2023	14 Dec 2023
Machine Age	hrs	Client Info	<b>56568</b>	0	56062
Oil Age	hrs	Client Info	<b>56062</b>	0	53647
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	Changed
Sample Status			<b>SEVERE</b>	SEVERE	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 D5185m	>15	<b>6</b>	5	8
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>6	<b>2</b>	1	1
Lead	ppm	ASTM D5185m	>9	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>14	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>4	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>4</b>	4	4
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>7</b>	8	7
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>23</b>	20	21
Calcium	ppm	ASTM D5185m		<b>1782</b>	1879	1578
Phosphorus	ppm	ASTM D5185m		<b>302</b>	260	284
Zinc	ppm	ASTM D5185m		<b>378</b>	339	335
Sulfur	ppm	ASTM D5185m		<b>2316</b>	2059	2089

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	<b>289</b>	217	85
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	3

## INFRA-RED

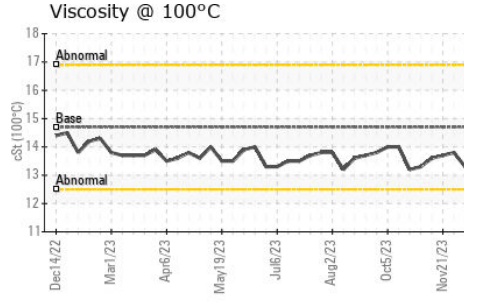
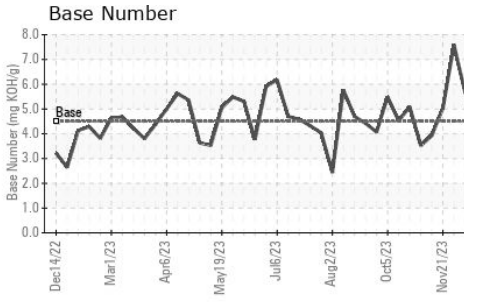
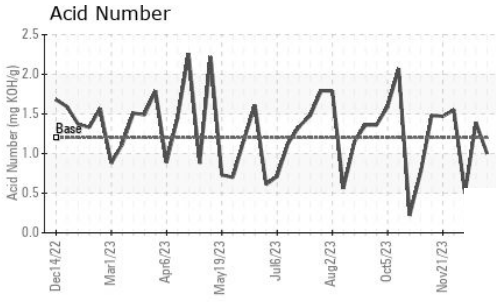
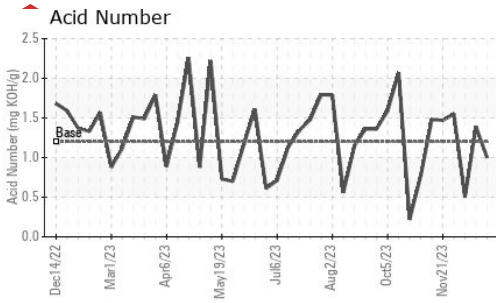
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	5.7	4.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	18.5	15.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	11.8	8.6
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>1.00</b>	1.39	0.50
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	<b>3.91</b>	4.48	5.69



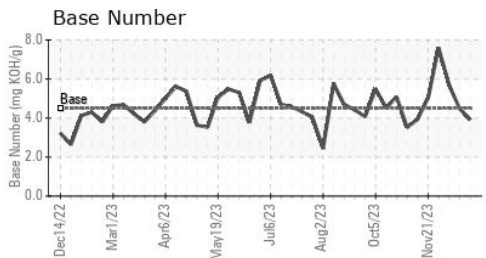
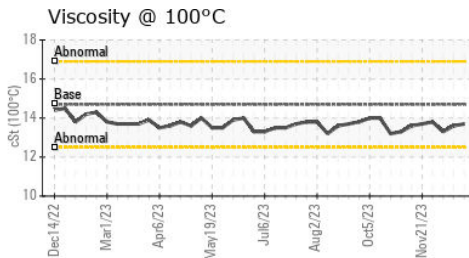
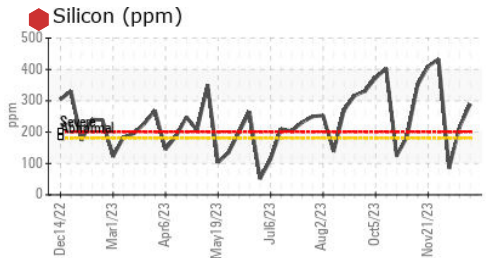
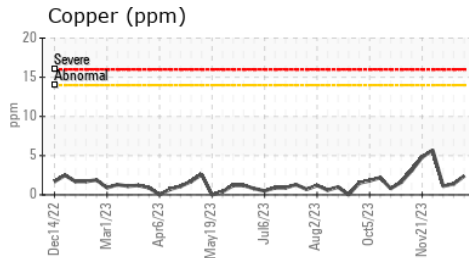
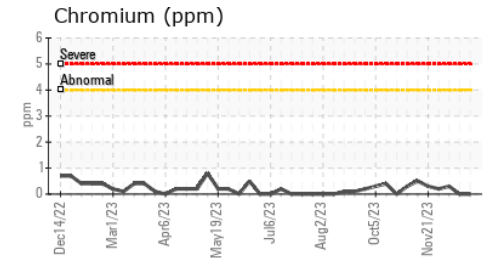
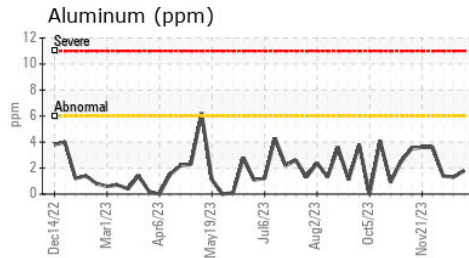
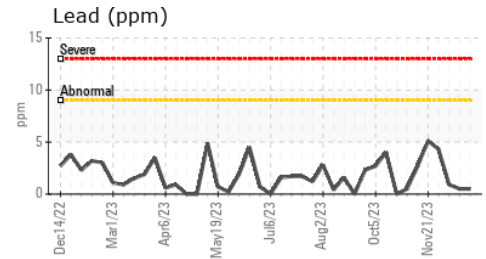
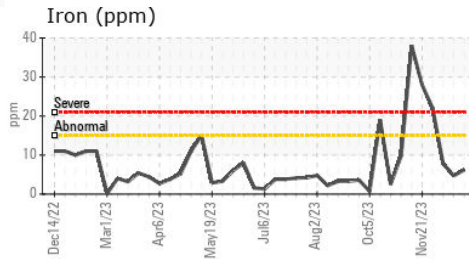
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.7	13.7	13.6	13.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0732908 **Received** : 09 Jan 2024  
**Lab Number** : 06055989 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10821938 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**EDL NA Recips-Decatur**  
 620 LANDFILL DRIVE  
 TRINITY, AL  
 US 35673  
 Contact: JEFF SUMMERS  
 jeff.summers@energydevelopments.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)

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F: