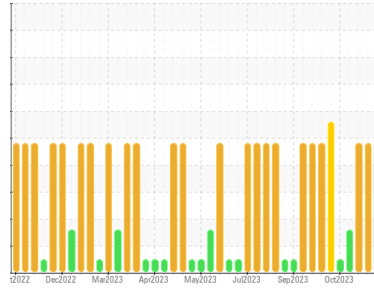




# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**DECM02BE (S/N 4EK00128)**  
 Component  
**Biogas Engine**  
 Fluid  
**CHEVRON HDAX 6500 LFG GAS ENGINE OIL (100 GAL)**

## DIAGNOSIS

### Recommendation

We recommend that you drain the oil and perform a filter service on this component if not already 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>WC0732864</b>	WC0732860	WC0732918
Sample Date	Client Info		<b>05 Dec 2023</b>	21 Nov 2023	13 Nov 2023
Machine Age	hrs	Client Info	<b>57873</b>	57658	57465
Oil Age	hrs	Client Info	<b>898</b>	683	490
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	0.2
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>	4	3
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
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>4</b>	3	2
Lead	ppm	ASTM D5185m	>9	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>14	<b>10</b>	9	6
Tin	ppm	ASTM D5185m	>4	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>4</b>	4	3
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	3	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>22</b>	19	17
Calcium	ppm	ASTM D5185m		<b>2042</b>	1968	1828
Phosphorus	ppm	ASTM D5185m		<b>306</b>	311	213
Zinc	ppm	ASTM D5185m		<b>397</b>	367	343
Sulfur	ppm	ASTM D5185m		<b>2478</b>	2484	2221

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	<b>343</b>	312	260
Sodium	ppm	ASTM D5185m		<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	2

## INFRA-RED

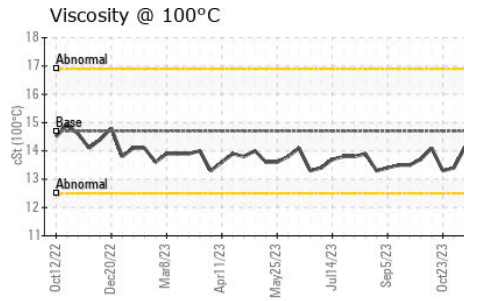
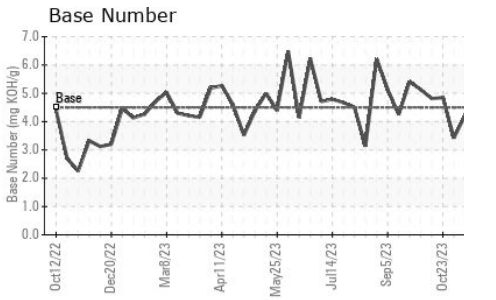
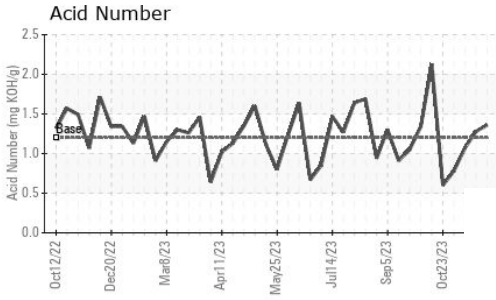
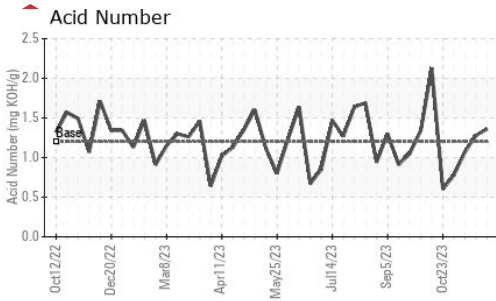
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	7.1	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.3</b>	21.7	20.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	14.6	13.0
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>1.36</b>	1.28	1.07
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	<b>4.63</b>	5.39	4.21



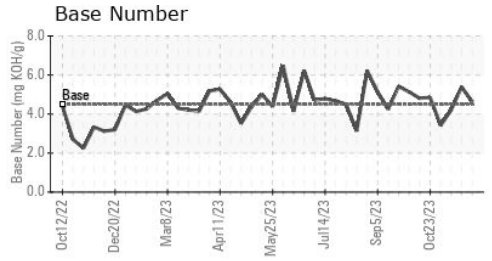
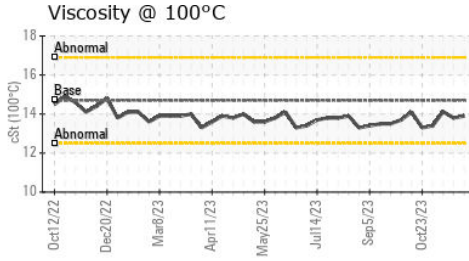
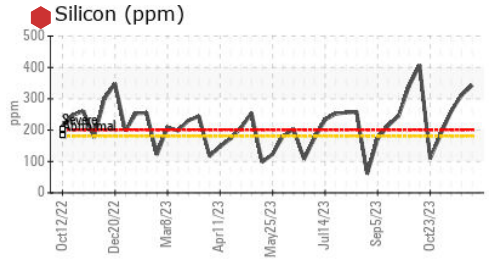
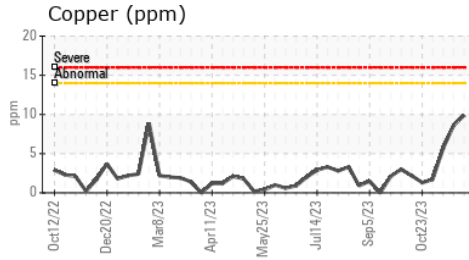
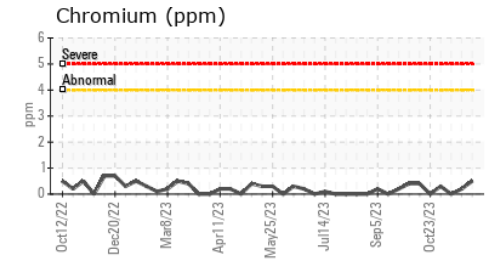
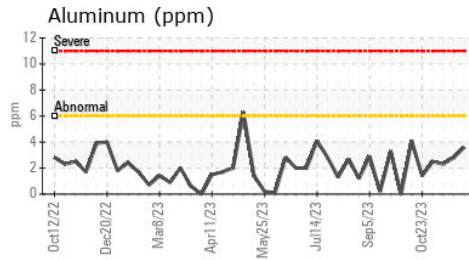
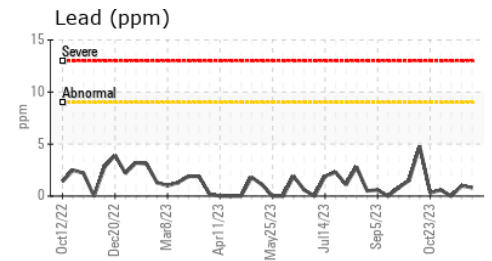
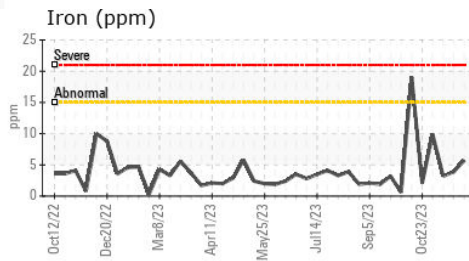
# OIL ANALYSIS REPORT



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	13.9	13.8

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0732864  
 Lab Number : 06028781  
 Unique Number : 10778572  
 Test Package : MOB 2

Received : 07 Dec 2023  
 Diagnosed : 11 Dec 2023  
 Diagnostician : Don Baldrige

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: