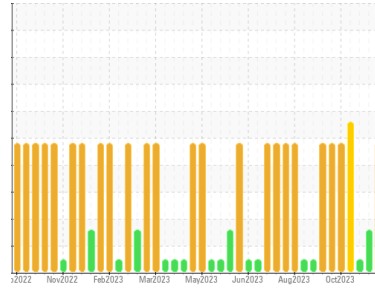




# OIL ANALYSIS REPORT

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>WC0732918</b>	WC0732916	WC0732914
Sample Date	Client Info		<b>13 Nov 2023</b>	30 Oct 2023	23 Oct 2023
Machine Age	hrs	Client Info	<b>57465</b>	57139	56975
Oil Age	hrs	Client Info	<b>490</b>	164	2
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>SEVERE</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
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>3</b>	10	2
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>6	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>9	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>14	<b>6</b>	2	1
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>3</b>	5	3
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	3	3
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>17</b>	20	13
Calcium	ppm	ASTM D5185m		<b>1828</b>	1806	1777
Phosphorus	ppm	ASTM D5185m		<b>213</b>	301	281
Zinc	ppm	ASTM D5185m		<b>343</b>	385	342
Sulfur	ppm	ASTM D5185m		<b>2221</b>	2608	1731

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	<b>260</b>	186	109
Sodium	ppm	ASTM D5185m		<b>3</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	<1
Fuel	%	ASTM D3524	>4.0	<b>0.2</b>	<1.0	<1.0

## INFRA-RED

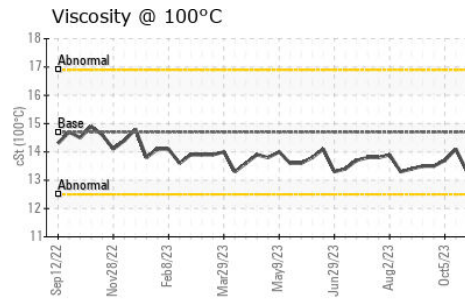
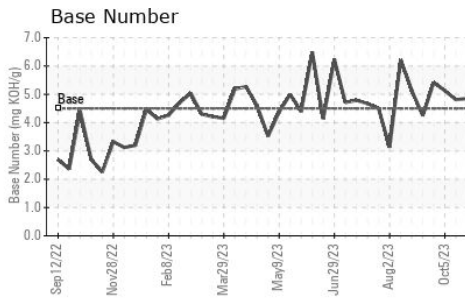
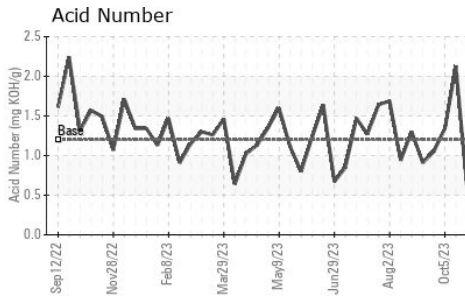
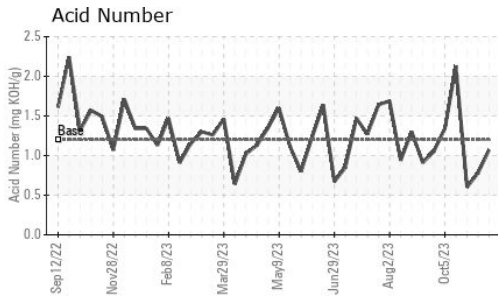
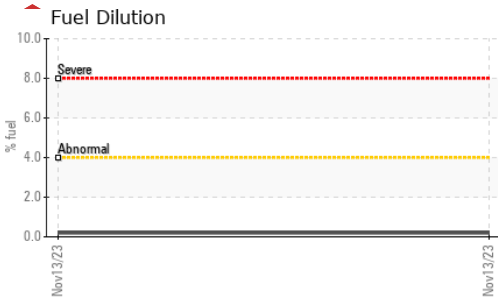
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.6</b>	6.1	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	18.0	17.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.0</b>	11.4	9.7
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>1.07</b>	0.78	0.60
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	<b>4.21</b>	3.42	4.85



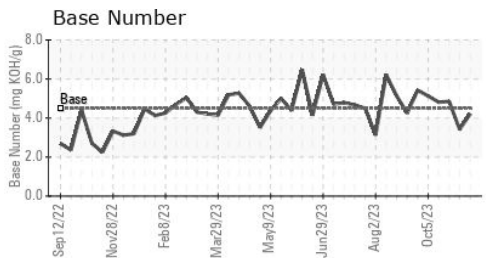
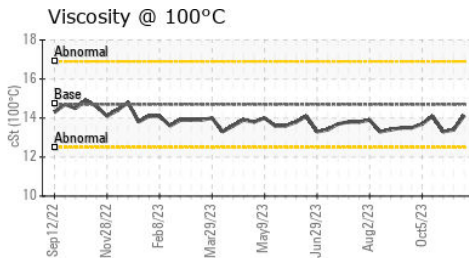
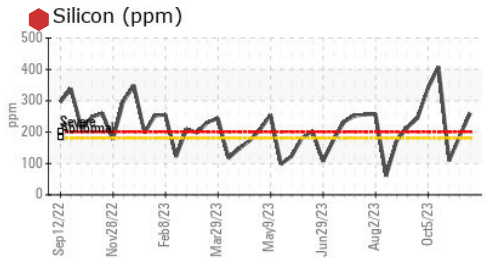
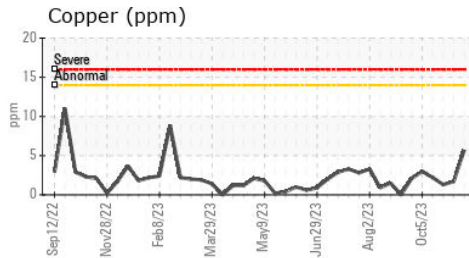
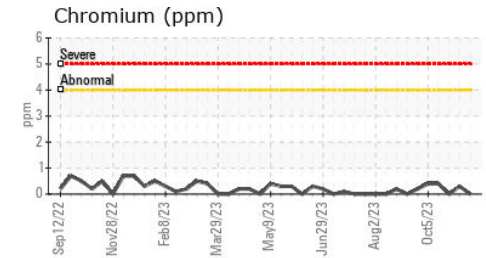
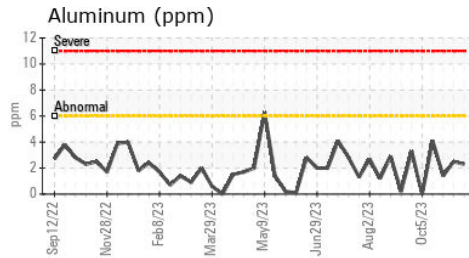
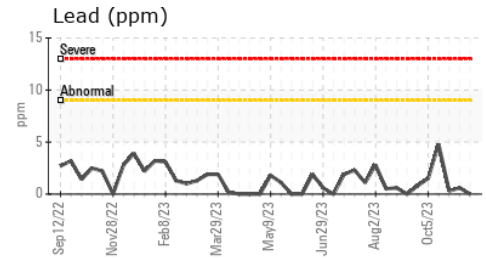
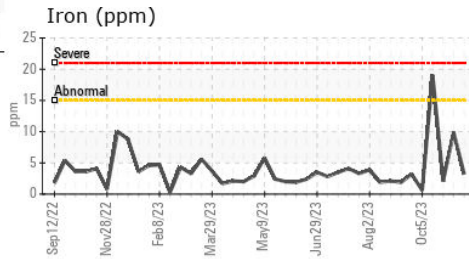
# OIL ANALYSIS REPORT



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	14.12	13.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0732918 **Received** : 15 Nov 2023  
**Lab Number** : 06008515 **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10742277 **Diagnostician** : Sean Felton  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**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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