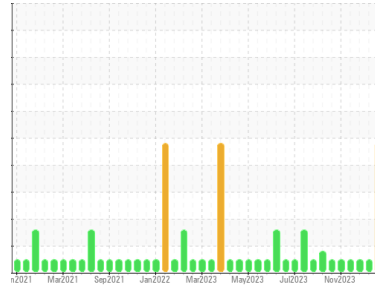




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
PECM01BE
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (150 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 indicating ingress of seal material.

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		WC0788394	WC0788276	WC0788282
Sample Date	Client Info		21 Feb 2024	07 Feb 2024	23 Jan 2024
Machine Age	hrs	Client Info	114589	114250	1113898
Oil Age	hrs	Client Info	675	335	60
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			SEVERE	NORMAL	NORMAL

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 D5185m	>15	5	0	1
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>6	<1	<1	3
Lead	ppm	ASTM D5185m	>9	2	2	<1
Copper	ppm	ASTM D5185m	>6	3	<1	1
Tin	ppm	ASTM D5185m	>4	4	2	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		12	12	11
Barium	ppm	ASTM D5185m		5	0	0
Molybdenum	ppm	ASTM D5185m		6	2	4
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		23	18	20
Calcium	ppm	ASTM D5185m		1934	1715	1736
Phosphorus	ppm	ASTM D5185m		270	218	272
Zinc	ppm	ASTM D5185m		380	330	330
Sulfur	ppm	ASTM D5185m		3716	2564	2512

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	235	117	60
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	2	<1	3

INFRA-RED

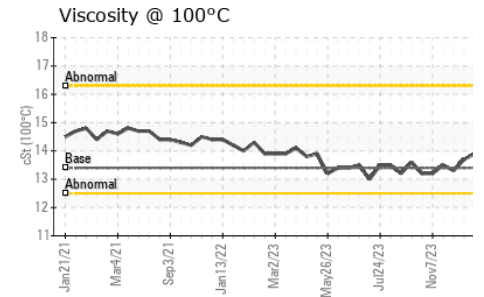
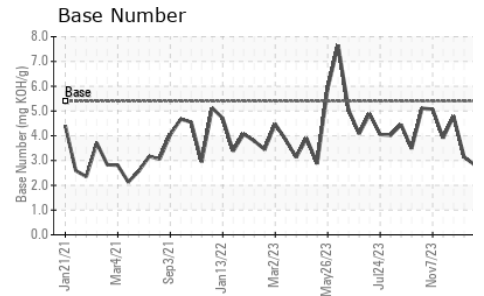
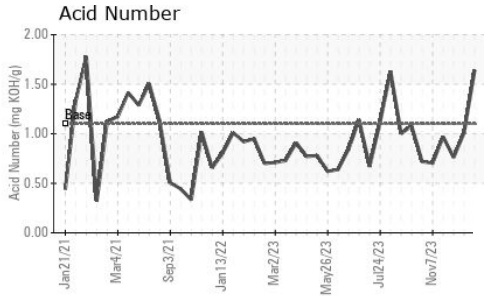
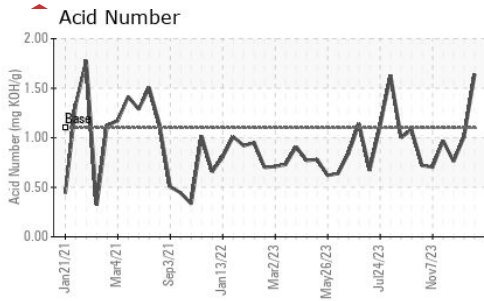
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	6.1	5.6	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	20.6	16.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	12.1	9.1
Acid Number (AN)	mg KOH/g	ASTM D8045	1.1	1.64	1.01	0.76
Base Number (BN)	mg KOH/g	ASTM D2896	5.4	2.83	3.14	4.79



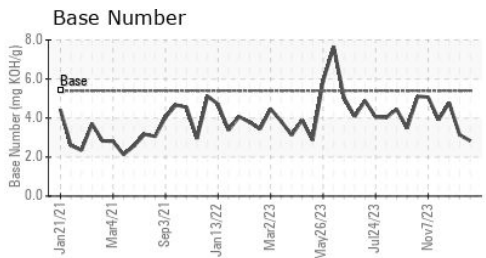
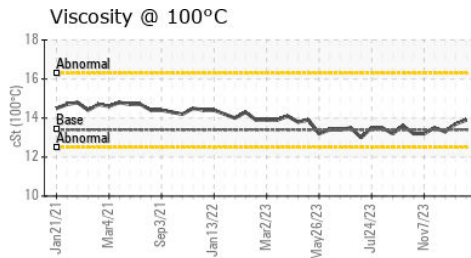
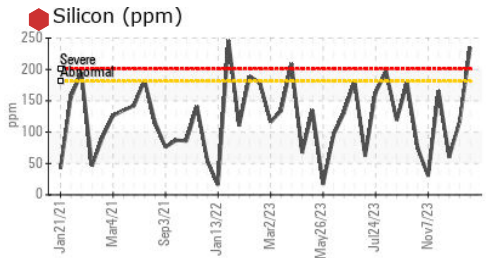
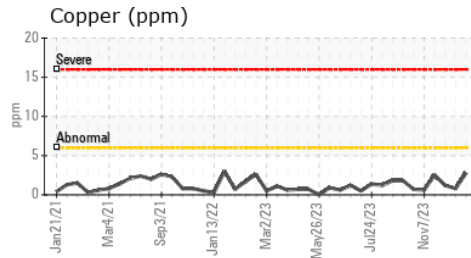
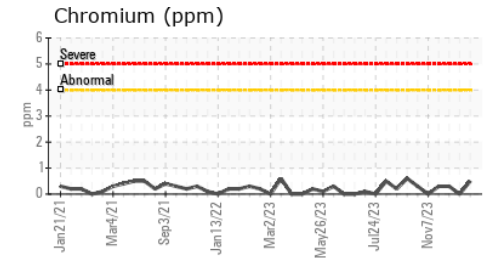
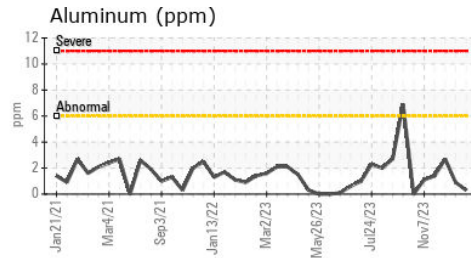
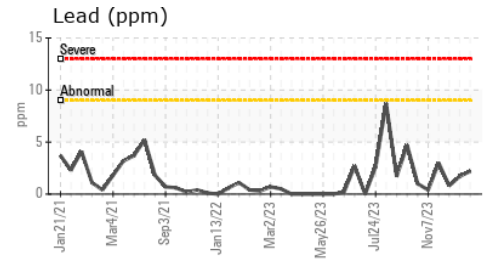
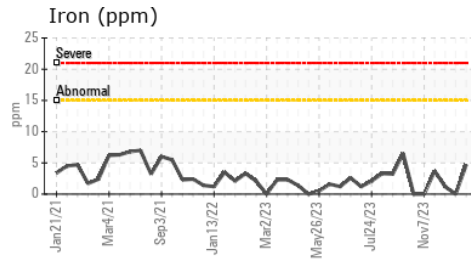
OIL ANALYSIS REPORT



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	13.4	13.9	13.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0788394
Lab Number : 06099291
Unique Number : 10897521
Test Package : MOB 2

Received : 23 Feb 2024
Tested : 26 Feb 2024
Diagnosed : 27 Feb 2024 - Sean Felton

EDL NA Recips-Pecan Row
 PECAN ROW POWER STATION, 2995 WHERINGTON LN
 VALDOSTA, GA
 US 31601
 Contact: JASON JONES
 jason.jones@energydi.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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