

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id PECM03BE Component Biogas Engine Fluid CHEVRON HDAX 9500 GAS ENGINE OIL 40 (150 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

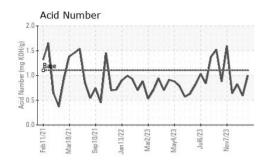
Fluid Condition

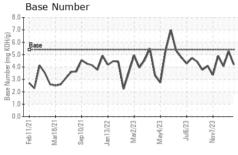
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

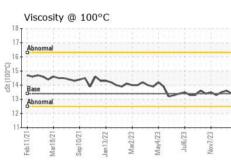
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SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0788281	WC0788278	WC0788273
Sample Date		Client Info		21 Feb 2024	07 Feb 2024	02 Jan 2024
Machine Age	hrs	Client Info		58317	57985	57351
Oil Age	hrs	Client Info		347	20	82
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	J .	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	2	0	3
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>6	<1	<1	1
Lead	ppm	ASTM D5185m	>9	1	2	3
Copper	ppm	ASTM D5185m	>6	2	1	2
Tin	ppm	ASTM D5185m	>4	2	2	2
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		11	11	11
Barium	ppm	ASTM D5185m		5	0	0
Molybdenum	ppm	ASTM D5185m		6	2	3
Manganese	ppm	ASTM D5185m		<1	1	4
Magnesium		7101111 20100111		~ !	l l	<1
	ppm	ASTM D5185m		22	16	<1 23
Calcium	ppm ppm					
		ASTM D5185m		22	16	23
Phosphorus	ppm	ASTM D5185m ASTM D5185m		22 1871	16 1688	23 1848
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		22 1871 274	16 1688 217	23 1848 315
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1871 274 368	16 1688 217 322	23 1848 315 359
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >181	22 1871 274 368 3373	16 1688 217 322 2717	23 1848 315 359 2977
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		22 1871 274 368 3373 current	16 1688 217 322 2717 history1	23 1848 315 359 2977 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		22 1871 274 368 3373 current	16 1688 217 322 2717 history1	23 1848 315 359 2977 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>181	22 1871 274 368 3373 current 128	16 1688 217 322 2717 history1 151 <1	23 1848 315 359 2977 history2 137 <1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>181	22 1871 274 368 3373 current 128 0	16 1688 217 322 2717 history1 151 <1	23 1848 315 359 2977 history2 137 <1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm	ASTM D5185m	>181	22 1871 274 368 3373 current 128 0 2	16 1688 217 322 2717 history1 151 <1 <1	23 1848 315 359 2977 history2 137 <1 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D7844	>181 >20 limit/base	22 1871 274 368 3373 current 128 0 2 current	16 1688 217 322 2717 history1 151 <1 <1 history1	23 1848 315 359 2977 history2 137 <1 0 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	>181 >20 limit/base >20	22 1871 274 368 3373 current 128 0 2 current 0.1 5.5	16 1688 217 322 2717 history1 151 <1 <1 history1 0 4.9	23 1848 315 359 2977 history2 137 <1 0 history2 0 5.8
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm Abs/cm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>181 >20 limit/base >20 >30	22 1871 274 368 3373 current 128 0 2 current 0.1 5.5 19.2	16 1688 217 322 2717 history1 151 <1 <1 history1 0 4.9 15.2	23 1848 315 359 2977 history2 137 <1 0 history2 0 5.8 19.3
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm TION	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD ASTM D5185m METHOD ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD *ASTM D7844 *ASTM D7624 *ASTM D7415 METHOD	>181 >20 limit/base >20 >20 >30 limit/base	22 1871 274 368 3373	16 1688 217 322 2717 history1 151 <1 <1 <1 4.9 15.2 history1	23 1848 315 359 2977 history2 137 <1 0 history2 0 5.8 19.3 history2



OIL ANALYSIS REPORT





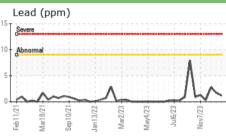


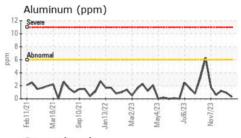
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

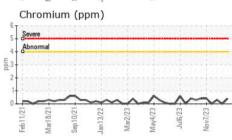
FLUID PROPER	TIES	method				history2
Visc @ 100°C	cSt	ASTM D445	13.4	13.4	13.6	13.5

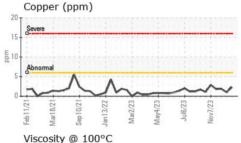
Seve	re		11777		11111		
Abno	ormal						
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-		1			\wedge	_^_	Λ_{λ}
± 1.0							
12	Mar18/21	Sep10/21	Jan 13/22	Mar2/23	May4/23	Jul6/23	Nov7/23

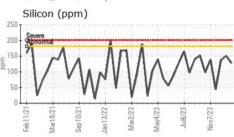
GRAPHS

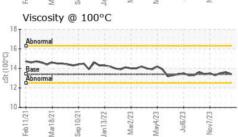


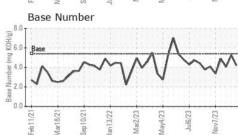
















Laboratory Sample No. Lab Number : 06099290 Unique Number: 10897520

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0788281

Received **Tested**

Diagnosed

: 23 Feb 2024

: 26 Feb 2024

: 27 Feb 2024 - Sean Felton

EDL NA Recips-Pecan Row

PECAN ROW POWER STATION, 2995 WHETHERINGTON LN VALDOSTA, GA

US 31601 Contact: JASON JONES jason.jones@energydi.com

Test Package : MOB 2 Certificate L2367 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: