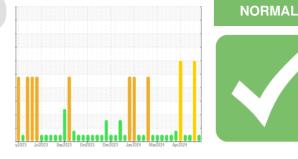


OIL ANALYSIS REPORT



Sample Rating Trend





BRCM02BE (S/N GZJ00357)

Biogas Engine Fluid

Machine Id

CHEVRON HDAX 9500 GAS ENGINE OIL 40 (--- GAL)

SAMPLE INFORMATION method

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Wear All component wear rates are normal. Contamination There is no indication of any contamination in the

oil.

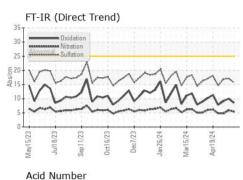
Fluid Condition

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.

SAMPLE INFORM		method	iimii/base	current	nistory i	nistory∠
Sample Number		Client Info		WC0760840	WC0760837	WC0760829
Sample Date		Client Info		04 Jun 2024	17 May 2024	03 May 2024
Machine Age	hrs	Client Info		75764	75354	75207
Oil Age	hrs	Client Info		84	306	159
-	1115	Client Info		Not Changd		Not Changd
Oil Changed		Client Inio		0	Not Changd	0
Sample Status				NORMAL	SEVERE	NORMAL
CONTAMINATION	۷	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	-	history1	history2
			iiiiii/base		TIIStOLA	TIIStOLAZ
PQ		ASTM D8184		15		
Iron	ppm	ASTM D5185m	>14	<1	4	<1
Chromium	ppm	ASTM D5185m	>3	0	<1	0
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>5	2	3	1
Lead	ppm	ASTM D5185m	>8	0	1	0
Copper	ppm	ASTM D5185m	>5	0	2	<1
Tin	ppm	ASTM D5185m	>3	<1	▲ 5	<1
				4	-1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Vanadium Cadmium	ppm ppm	ASTM D5185m ASTM D5185m		<1 0	<1	0
			limit/base			
Cadmium		ASTM D5185m	limit/base	0	<1	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	<1 history1	0 history2
Cadmium ADDITIVES Boron	ppm ppm	ASTM D5185m method ASTM D5185m	limit/base	0 current 8	<1 history1 10	0 history2 8
Cadmium ADDITIVES Boron Barium	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	0 current 8 0	<1 history1 10 0	0 history2 8 0
Cadmium ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11	<1 history1 10 0 7	0 history2 8 0 5
Cadmium ADDITIVES Boron Barium Molybdenum	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1	<1 history1 10 0 7 <1	0 history2 8 0 5 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16 1795	<1 history1 10 0 7 <1 26	0 history2 8 0 5 <1 44
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16	<1 history1 10 0 7 <1 26 1801 302	0 history2 8 0 5 <1 44 1870
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16 1795 270	<1 history1 10 0 7 <1 26 1801	0 history2 8 0 5 <1 44 1870 306
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16 1795 270 335	<1 history1 10 0 7 <1 26 1801 302 372	0 history2 8 0 5 <1 44 1870 306 368
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 current 8 0 11 <1 16 1795 270 335 2177	<1 history1 10 0 7 <1 26 1801 302 372 2350	0 history2 8 0 5 <1 44 1870 306 368 2237
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16 1795 270 335 2177 current	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1	0 history2 8 0 5 <1 44 1870 306 368 2237 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 8 0 11 <1 16 1795 270 335 2177 current 64	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1 168	0 history2 8 0 5 <1 44 1870 306 368 2237 history2 83
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >180 >20	0 current 8 0 11 <1 16 1795 270 335 2177 current 64 <1 3	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1 168 0	0 history2 8 0 5 <1 44 1870 306 368 2237 2237 history2 83 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >180 >20 >20	0 current 8 0 11 <1 16 1795 270 335 2177 current 64 <1 3	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1 168 0 3 3	0 history2 8 0 5 <1 44 1870 306 368 2237 history2 83 <1 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >180 >20 >20	0 current 8 0 11 <1 16 1795 270 335 2177 current 64 <1 3 Current	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1 168 0 3 history1 0	0 history2 8 0 5 <1 44 1870 306 368 2237 history2 83 <1 <1 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >180 >20 >20	0 current 8 0 11 <1 16 1795 270 335 2177 current 64 <1 3 current 0	<1 history1 10 0 7 <1 26 1801 302 372 2350 history1 168 0 3 3 history1	0 history2 8 0 5 <1 44 1870 306 368 2237 history2 83 <1 <1 <1 history2 0

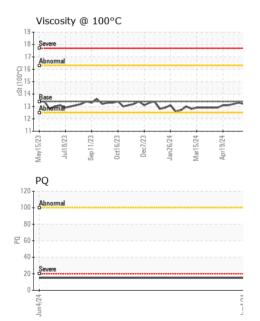


OIL ANALYSIS REPORT

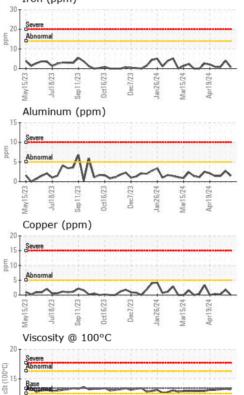


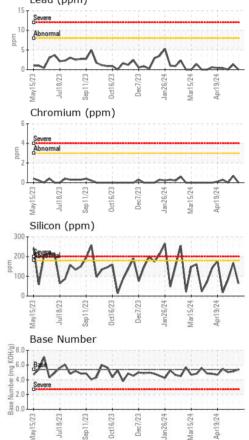






FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		8.5	10.0	9.1
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.50	0.70	0.34
Base Number (BN)	mg KOH/g	ASTM D2896	5.4	5.40	5.14	5.03
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	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		NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.4	13.2	13.3	13.2
GRAPHS						
Iron (ppm)			15	Lead (ppm)		
UT			10	Severe		





Lab Number : 06202122 Tested : 18 Jun 2024 GEORGETOWN, OH Unique Number : 11069583 Diagnosed : 18 Jun 2024 - Jonathan Hester Test Package : MOB 2 (Additional Tests: PQ) Contact: MITCHELL BUTLER Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Mitchell.Butler@edlenergy.com * - 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)

Dec7/23

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

Received

an26/24 Mar15/24

Sep11/23

0ct16/73

Apr19/24 .

: 06 Jun 2024

Mav15/23

10

Laboratory

Sample No.

Mav15/23 u118/73

: WC0760840

Report Id: ENEGEO [WUSCAR] 06202122 (Generated: 06/22/2024 17:32:25) Rev: 2

Submitted By: BRETT PONTIUS

Jan 26/24

EDL NA Recips-Brown County BROWN COUNTY POWER STATION, 9427 BEYERS RD

Mar15/24 Apr19/24

Jec7/23

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